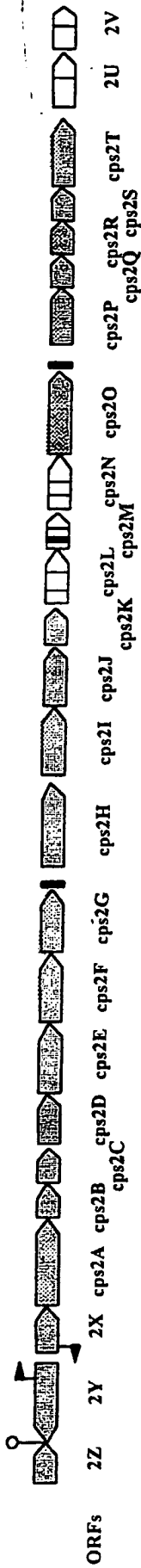
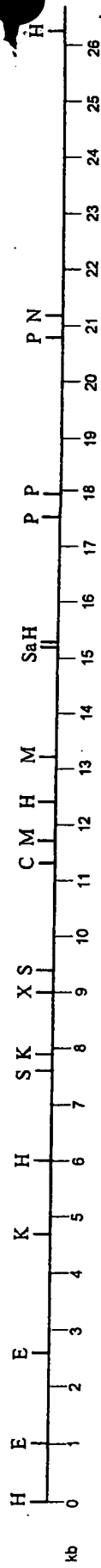


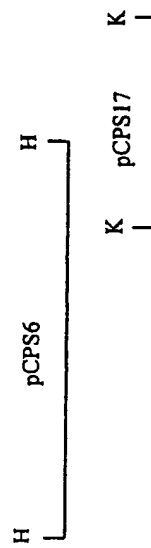
A



B



C



S pCPS18 S

X pCPS20 H

M pCPS23 M

H pCPS26 H

Sa pCPS29 P

H pCPS30 N

P pCPS34 H

Fig. 1

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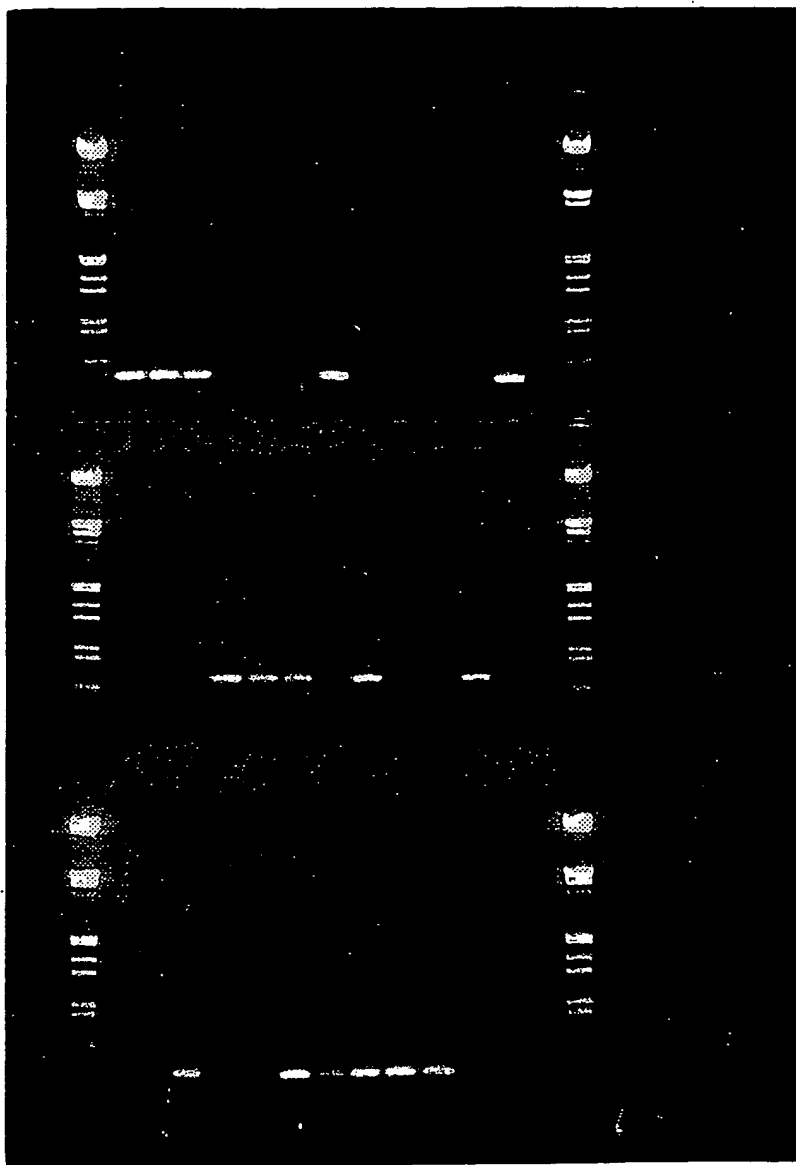


Fig. 2

Best Available Copy

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 CTAGGGATAT GTATATCGAA GAGCATCCGA ATGTCAATAT CCATTTGATA
 GATAGTTTGT CAGCCAGTGG GGAAATGGAT TTACTTGTAC ACCAAATCAA TCGCTTAATT
 AGTGCAGGAT TAGATTTTCC ACAAGTAGTA GAAGCGATAA CTCCTATCG
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 ACGCTTTTGC TAGTAGGAGT GGCAGTATTG GCTGGATTAT TGATGTGGCG TAAGAAAGCG
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Fig. 3

DNA Serotype 2

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Fig. 3 cont.

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Fig. 3 cont.

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Fig. 3. cont.

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 TAATAATTTG TTTAAATTT TTTTAAATAC TTTAATTAGG GAAGAAAAAA ATAATGATTA
 ACATTTCTAT CATCGTCCCA ATTTACAATG TTGAACAATA TCTATCCAAG
 TGTATAAATA GCATTGTAAA TCAGACCTAC AAACATATAG AGATTCTTCT GGTGAATGAC
 GGTAGTACGG ATAATTCGGA AGAAATTTGT TTAGCATATG CGAAGAAAGA
 TAGTCGCATT CGTTATTTTA AAAAAGAGAA CGGCGGGCTA TCAGATGCCC GTAATTATGG
 CATAAGTCGC GCCAAGGGTG ACTACTTAGC TTTTATAGAC TCAGATGATT
 TTATTCATT GGAGTTTATC CAACGTTTAC ACGAAGCAAT TGAGAGAGAG AATGCCCTTG
 TGGCAGTTGC TGGTTATGAT AGGGTAGATG CTTCGGGGCA TTTCTTAACA
 GCAGAGCCGC TTCCTACAAA TCAGGCTGTT CTGAGCGGCA GGAATGTTTG TAAAAAGCTG
 CTAGAGGCGG ATGGTCATCG CTTTGTGGTG GCCTGGAATA AACTCTATAA
 AAAAGAACTA TTTGAAGATT TTCGATTTGA AAAGGGTAAG ATTCATGAAG ATGAATACTT
 CACTTATCGC TTGCTCTATG AGTTAGAAAA AGTTGCAATA GTTAAGGAGT
 GCTTGTTACTA TTATGTTGAC CGAGAAAAATA GTATCATAAC TTCTAGTATG ACTGACCATC
 GCTTCCATTG CCTACTGGAA TTTCAAAATG AACGAATGGA CTTCTATGAA
 AGTAGAGGAG ATAAAGAGCT CTTACTAGAG TGTATCGTT CATTTTTAGC CTTTGCTGTT
 TTGTTTTTAT GCAAATATAA TCATTGGTTG AGCAAACAGC AAAAGAAGCT
 TCTCCAAACG CTATTTAGAA TTGTATATAA ACAATTGAAG CAAAATAAGC GACTTGCTTT
 ACTAATGAAT GCTTATTATT TGGTAGGGTG TCTTCATCTT AATTTTAGTG
 TCTTTCTGAA AACGGGGAAA GATAAAATC AAGAAAAGATT GAGAAGAAGT GAAAGTAGTA
 CTCGGTAAGA ATGTTGTAAT AAATGGTTGA AAGAAAAGGG GATTAAAATG
 AATCCAACAA ATAGTAGAAT AGCACTCTTT GATACGATTA AATGTATCAT GGTACTTTGT
 GTTATTTTTA CACATCTGGA TTGGTCTGTT GAGCAGCGTC AATGGTTTAT
 CTTTCCGTAT TTCGTTGACA TGGCTGTTCC AATTTTTCTG TTGCTTTCTG CCTATTTTCTG
 AACGAATAAG TGGAATACAA AACAGAGAC GCTAAAGCTC AAGTTCAGCA
 GTGGTATAAA AGAAAGTATA AACATGCTTT GTCTCTATGC TATCGTGATG GCTGTTAATG
 TTTTATTGAG CTATTCGAGA ACCATCTGAT AGGAGTAAAG CCTTTTTTCAG
 GTTCTTCATC GCTCCGTTCA TTTGTCTGT GGCTACTTTC TGGAGAATCG GGTCCAGGGA
 GTTGGGAGTT ACTATGTTCC GTTGTGATT CAGGTAGTTT TTTTATTACC
 AATTTTGTAT GTTCTTTTCTG AGAAAAATAA ATGGTTGGGC TTGCTTACTT GTTTTTTAGT
 AAACTTTTC GTGGATGCCA TATTTGCTAA CATGGCTGAA CACGGCATAT
 ATATATAGAC TAATATCACT TCGTTATCTT TTTGTTCTAG GGCTTGGTTT TTTCTTTCAA
 AGCAGGATGT GCGTTCCAAG GTAGATACTT TCATTGCGAC CCTATTTGGG
 ATTATTGGAG CAATTCTGAT TTTTGTAAT CATTCTATAG AGCCCTTCTC CTGGTTTTAT
 GGTGGAAGT CTACTTCCTT TCTATGCGTC CCATTTGCGT ATGCTATGCT
 ATTTTTTATG ATAAAGTATG GACAGAAGAT TCCAGCAATA CTGTTGTCAA AATTGGGAGT
 TGCTTCTTAT CATATCTACT TGACCCAGAT GCTGTATTTT TCAGTAGTCG

Fig. 3 cont.

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CACCATTTTT AGCAGTGCAA TTTAAGGTAT CTTTCGTTGAA TTTGTGGAAC GGCTTGTTTA
 CCTTTCTAAT TTGCCTGTTT GGTGGCTATA TTTTCTACAA AGTGGATCTG
 TTTATGAGAG TACGTGGAAA ACGATAATGA CTCATTTTCAG ATTAGCAGAT GCCATTTTCGT
 TTATTAGCAG ATTCGCATGT TAATATTCCG ACAAAGAAAT TCAAATAGGT
 TGACGAGAGA GGAGTGGTAT CTGTTTCTAA ACCCCAGTAT CCCCCTTTAT TTTCAAAGCT
 ATATTTATTA ACTGAACAAG GAGAATTTTT AAGAGAACTG TTTGTTTAAT
 CCCAGCACGA TCTGGTTCGA AAGGCTTACC GAATAAAAAC ATGCTATTTT TGGACGGGAA
 ACCCATGATT TTTACACGA TTGATGTGGC AATTGAATCA GGTGTTTTG
 AGAAAGAAGA CATCTATGTC AGTACGGATT CAGAAATGTA TAAGGGGGG ACCTCTATAA
 ATTCCTCAAAA TTGCGAATTT GGAGTTACGA AAGCCTTGTT AAATCAACAT
 CTTAAATTTT AGAAAATTAG TTTTATAGAG TCCCCAAGGG GATTTGCGAG ACAAGAGGCA
 TCAATGTATT GTTAAGACCC AAAGAACTAT CTACTTATCA TACTCCATCG
 AATGAAGTCA GTACGCACTT TTTTACGAAT CTGGATTTTA TGAAGATTGT ATATTTGTTT
 TTCTGCAAGT CACCTCACCG TTACGGACTG GCGAACAGAT AAAAGAAGCC
 ATGAATATGT ACTTACAGGG GGACTCAGAA AATGTTTTGC ATTTCAATGA TGAAGGGCAA
 GAAAGAGTGA ATCAGTACAT TATCGAAGCT GTACAGGGGT TATAAAAAGG
 GGTTACTTAT CCTTAAAGTC TGTATGTAGA AGGAGAAAAA TTGAGACGAA TTTATATTTG
 CCATACGATG TATCAGATCC TGATTTCCCT GTTAAAGATG GACGTTGAGA
 GAGATAGTTT GATGTCCGTT GATATCATCG GGCATTTTCC AGATGTCAGG GAGCAACTGC
 AGCAGCATGT TCATCTAATC GAGGGAGACG GAGCGTTCAT TTGATCTATA
 TTCTTTGATA GCTAGATCAA AAACAAAAGA ACGCCTTTCC TTGTTACAGA GCTATGACGA
 GGTGATCATT TTCAAGATC ACCGTCAAGT CGGTCATTTT TTAATAAAC
 ATCGGATTCC CTATTCTCTT TTGGAGGATG GTTATAATTT TTTCAAGGAT AAAAGAGTGT
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 AATGATCTGT CGCTCGTACA ATTTGACTAG GCTTATAAAC CCTTTGTAGA
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 GGAGATTTAT GTAGCAGGTC TTGCCCTTA TCGGGAAGAC TATACAATCT
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 TTCTGCCTCA AGGTATTCCG TTTGAGTTGT TCGAAATGGC AGGTAATATC
 CGTTTTGATA TCGGTATGAC CTATAGTTCC TCTGCTTTAG ATTTTTTAAA TTGTTTTGAA
 GAGAAAGTGT ATTTAAAGGA CACTTTTCCT CTTCTTTCAA AAAATGATAT
 TTTGCGTGAG GGGATAGAAT AGGAGGATTC ATGTCTAAAA AATCAATAGT TGTCTCAGGT
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 CCTCCCCATC TATACTCGTG TCATTTCTCA GGAAGTATAT GGGCAGTTTA GCTTGTATAA
 TTCGTGGGTG GGGCTAGTTG GTCTCTTTAT CGGTCTACAG TTAGGTGGGG
 CTTTTGGCCC GGGATGGGTA CACTTCCGCG AGAAATTTGA TGATTTGTA TCCACCTTGA
 TGGTCTCTTC TATCGCTTTC TTTTACCCTA TTTTGGGCT ATCTTTTCTC
 CTCAGTCAGC CCCTATCGCT CCTATTGGGT TTGCCTGATT GGGTCGTTCC GCTTTACTTT
 TTGCAAAAGT TTATGAGTGT TGTGCAAGGA TTTTACGA CCTATTTAGT
 GCAGCGGCAG CAGTCCATGT GGACTTTACT CCTATCGGTA CTGAGCGCTG TTATCAACAC
 TGCTTTATCT TTATTTCTCA TCTTTTCGAT GGAGAATGAT TTCATCGCTC
 GTGTAATGGC AAACCTCGGA ACGACTGGTG TTTTGGCTTG TGTGTCCTTG TTGTTTTTCT
 ATAAGAAGAT TGGGCTTCAT TTTTCATGGA TTAGGTCATA ATGTAACAA TCAATTTGAC
 AGATATATCGA TTCCTCTTAT GCTAACACTG TCAGATGTAG CCCTATACAG
 TTTGCGCTAG ACATTGCGT CTATCTTACA AATTGTGTTT TCGAGCTTGA ATACGGTATG
 GTGTCCGTGC TATTTTGAGA AAAAGAGAGG TGCAGATAAA GATTTGCTCA
 GTTATGTCCG TTACTATCTG GCGATTGGCC TGTTTGTGAC TTTTGGATTT CTAACAATTT
 ACCCTGAATT AGCGATGTTG TTAGGTGGAT CTGAGTATCG TTTTCAGTATG
 GGATTTATTC CCATGATTAT TGTCGGGGTG TTCTTTGTAT TTCTTTATAG TTTTCCAGCC
 AATATCCAGT TTTATAGTGG AAATACAAAG TTTTGGCCAA TTGGTACTTT
 TATAGCAGGT GTACTAAATA TTTCCGTCCA CTTTGTTTTG ATACCGACAA AGAATTTATG
 GTGCTGCTTT GCAACGACTG CTTCTATCT GTTGTGCTA GTCTTGCTT
 ATTTTGTGTC TAAGAAAAAG TATGCTTACG ATGAAGTTGC GATTTCAACA TTTGTTAAGG
 TAATTGCTCT TGTTGTCGTC TATACAGGCT TGATGACAGT ATTTGTGCGT
 TCAATCTGGA TTCGTTGGTC ACTAGGAATA GCGGTCTAG TCGTTTATGC CTACATTTTT
 AGAAAGGAAT TAACAGTTGC CCTCAATACA TTCAGGGAAA AACGGTCTAA

Fig. 3 cont.

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ATAAGGGCAC CTCTATAAAC TCCCAAAATT GCGAATTGAG AGTTACGAAA GCCTTGTTAA
 ATCAAACATT TTAAATTTTA GAAAATTAGT TTTTAGAGGT CCCCATATAA
 AAACGTCCCA AATGAGAGGT GCTCATAAGA ATTGACCATC ACTGCCATCT ACCCAAAGTT
 CAAGTATTCT CTACCATGAA AATTGTGCTA TAATCAAGTA TAAAGAAGGG
 AATGTTTCTT AAAGGACGTA TGCGCCTCTG CTTATGCCAG AAGTCATGAG GTAAATCTCC
 CTAAAAATTG GGTAGAAAAG CAGATTAAAC TTCCACCAAT CTATTGAAGA
 TCGTGTGAA GAGCAGGCTT TAGAAGCAAC AAGCCCTGAG ACTATTCGAA AGAAATCTAG
 GGCTATTTTT TCTAATCGGC TATCAGAAGT GAAGTAGCGA TCTTTATTAG
 TGTTCTTTTA CTACTTAAGG AAAACCAAGC TGCTCCCTCA AGACTTTATG GGAGCGATTT
 ACAGTCAATTT TTAGAAAGGA AATAAAATGG TTTATATTAT TGCAGAAATT
 GGTTGTAATC ACAACGGTGA TGTTTCATCTA GCACGGAAAA TGGTAGAAGT TGCCGTTGAT
 TGTGGTGTGG ATGCCGTTAA ATTTAGACA TTTAAGGCAG ATTTGTTGAT
 TTCAAATAC GCACCAAAGG CCGAATACCA AAAAATTACA ACAGGAGAGT CAGATTCTCA
 GCTCGAAATG ACTCGTCGTT TGGAATTGAG CTTTGAAGAG TATCTTGATT
 TGCGTGATTA CTGTCTTGAA AAGGGAGTTG ATGTGTTTTT GACACCTTTT GATGAGGAAT
 CATTGGACTT CTGATTAGC ACAGATATGC CCGTTTATAA GATTCCATCT
 GGTGAGATTA CCAATCTTCC CTATTTGGAA AAAATTGGTC GTCAAGCTAA GAAAGTTATT
 CTTTCAACTG GTATGGCTGT TATGGATGAA ATTCATCAAG CGGTGAAGAT
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 CCCTTACCCT GCTTTGAATT TGAATGTCTT GCATACCTTG AAAAAAGAAT
 TTCAAACCTT AACAAATGGC TATTAGACC ATAGTGTGGG TTCAGAAGTA CCCATCGCTG
 CTGCAGCAAT GGGAGCTGAA TTGATTGAAA AGCACTTAC TCTGGACAAT
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 GAAGCGGACA AGCGTAGGAT TGTCAAGCGG ATTCATTGC ATTTGACGGA
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 TTTGAAGAA GTCCAGTATG ACTTGGTGTG GATTCTGGGG GATCGCTATG
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 GTGGTGAAAA AACCATGGGA AATTTTGATG AGTCGATTG CCAATGCCAT
 ACCAAGATGA GTCACCTTCA TCTGACATCA ACCGATGAAT TTAGAAATCG TGTCATTCAA
 CTAGGAGAAA ATCCAACCAT GTACTGAACA TCGGAGCTAT GGGTGTGAA
 AATGTTTTAA AACAAAGACT TTTGACAAGA GAAGAGTTGG CGATGGAAT TGGAATTGAT
 TTTGCCGAGG ATTACTATGT TGTACTCTT CACCCTGTTA CCTTGGAGGA
 TAACACAGCC GAAGAACAAA CGCAGGCCTT ATTAGATGCT CTAAAAGAAG ATGGTAGCCA
 GTGTTTGATA ATTTGGATCCA ATTCGGATAC ACATGCCGAT AAGATAATGG
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 TCCTTGTTG GATAGAATC GATATGAAT CATTGGATAT TTTGAAGATA AACCGATCAG
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 AGGAAATCTT TGACTTGCTT GCCAAAGATC ATTATGATGC TTTGTTCAAC
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 TATCATCAAT ACGGGTGCCA TTGTGGAACA TCATACCACG GTGGAGGCCC ATTGTAACAT
 TACTCCAGGA GTGACCATAA ATGGCTTGTG CCGTATCGGA GAAAGCACTT
 ATATTGGAAG TGTTTCAACA GTGATTCAAT GTATCGAGAT TGCACCTTAT ACAACATTGG
 GGGCAGGGAC AGTTGTTTTG AAATCGTTGA CGGAGTCAGG GACCTATGTT

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GGTGTACCTG CTAGAAAGAT TAAATAGGTG AATTGATGGA ACCAATTTGT CTGATTCCTG
CTCGGTCAGG ATCAAAAGGT TTACCAAATA AAAACATGTT ATTTTATAGAT
GGTGTACCGA TGATTTTCCA TACCATTGGA GCTGCGATTG AGTCTGGATG TTTTAAGAAA
GAAAATATAT ATGTCAGTAC TGATTCAGAG GTTTACAAGG AAATTTGTGA
AACAACTGGG GTTCAAGTCC TCATGCGTCC AGCTGACTTG GCGACAGATT TTACAACCTC
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TTGTTCTCCT GCAAGTTACG TCCCCATTAA GATCGGGAAA ACATGTCAAG GAGGCGATGG
AGTTATATGG GAAAGGTCAA GCTGACCACG TTGTTAGCTT TACCAAAGTC
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GGATTAGGTG GCAGTTATCG TCGTCAAGAT GAGAAAACAC TCTACTATCC
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AAACCAAGGT CTCTTTTTTG CTTACTCCGAT AAAGAAAAGTT TTGCTTTCTC TTGGTGTGAA
TGATTTGATT ACTGACTATC CTTGTCATAT GATTGAGGAT ACTATTCGCC
AGCTGATGGA AAGTCTTGTT TCCAAAGCAG AGCAGGTTTT TGTGACGACG ATTGCCTACA
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CAATCAGATT GGACAAGAGC GTGTGAATCA GCTGATTTTG ACAAGTTTGA CAAGATAATT
TGGTGATAGA AGCTATTTCA GTGGCTAGAC TATGTTGGTA TGTGTTTTAG
AGCCAGGAA TAACATCTGT AGAGGATGCT AGCCTTGAGA ATTGACAACC ATTTAGTTGT
TTTAATTATA TAAGGGGACC TCTAAAACT CCCTAAATTT CCCAAAAATG
AGATAATAGA ATAAAAAGTA ATGAGGAGAG CTGTCATGCA TTTATTCACA GACGATGAAA
AAATCTTGTC AAAACTATCA GAGAAAGGCA ATCCCTTAGA ACGTTTGAT
GCCGTTATGG ATTGGAATAT CTTTCTTCCA TTGTTGTCAG AGTTATTCAG TCGTAAAGAT
AAAGTCATCA GTCGTGGCGG TCGTCCTCAC CTAGACTATC TCATGATGTT
CAAAGCGCTC TTGCTTCAAC GTCTTCATAA CCTATCTGAC GATGCCATGG AATATCAACT
GCTGATCTGT ATATCTTTTC GTGCTTTTGT TGTTTGTGAT GAAGACACTG
TTCCCGATGC GAAAACTATC TGGCTCTATC GTGAGAAATT AACCAAGTCA GGTGCGTAAA
AGGAGTTGTT CGATTTGTTC TATGCCATC TCACAGATGA AGGGGTGATT
GCCCATTCAG GTCAGATTGT GGATGCTACC TTTGTGCAAT GCCCTAAACA ACGCAATTCA
CGTGAGGACA ATCAGAAAAT CAAAACCTTAT CGAAAATTAT GAGGTCACAA
CAGCTAGTGT ACACGACTCC AATGTCCTAG CTCCTCTTTG TGATGCCAAT GAAGCGGTTT
TTGATGACAG TGCTTATGTT GGAAAATCAG TACCAGAAGG TTGTCGCCAC
CACACGATTC GTCGTGCTTT TAGAAAATAA CCGTTGACTG AGACTGATAA GGTCAATTAAT
CGACATATTA CCAAAGTCCG TTGTCGCGTT GAGCATGGTT TTGGCTTCAT
TGAAACTAAC ATGAAAGGTA ACATCTGTG AGCAATTGGG AAGGCACGAG CTGAAACCAA
TGTGACCTTA ACCAACCTGC TCTACAATAT CTGTCGTTTT GAGCAAATCA
AACGACTGGG ATTACCATCC GTGGGCTTAG TGCGCCCAA AAATAGGAAA ATAAGCAAAA
AGAGGCTGGG CAAAACTAG TTTCTCACAA TAAAAAACG GCTCTTTGTC
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CATTCCTCCA TTATATAGTT AAATGAAACA AAAACAGTAC ATCTATGATA TAATGTATTT
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AACCGGCAGT ATTACTGAAG CATCAGCTAT TTTCCAAGTT TCACGTAACA CTATCTATCA
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GAACCAAGCC AAGAAAAGTG GATAGAGATA AATTAAAGAA TTATCTTGAA ACTCATCCAG
ATGCTTATTT GACTGAAATA GCTTCTGAAT TTGACTGTCA TCCAACAGCT
ATTCATTACC CCTCAAGAGC TATGGGATAT ACTCGAAAAA AAAGAGCTGT ACCTACTATG
ACAAGAGCCC TGAAAAAGTA GAAGTGTCC TTAAGAAGTT GAATAACTTA
AGCCACTTGA CTCCTGTTTA TATTGACGAG ACAGGGTTTG AGACATATTT TCATCGAAAA
TATGGTCGCT CTTTGAAAGG TCAGTTGATA AAAGGTAAGG TCTCTGGAAG
AAGATACCAG CGGATATCTT TAGTAGCAGG TCTCATAAAT GGTGCGCTTA TAGCCCCGAT
GACATACAAA GATACTATGA CGAGTGGCTT TTTCAAGCT T

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SLDIDHMMMEVMEASKSAAGSACPSPQAYQAAFEAGAENIIVVTITGGLSGSFNAARVARDM
YIEEHPNVNIHLIDSLASGEMDLLVHQINRLISAGLDFPQVVEAITHYREHSKLLFVLA
KVDNLVKNGRLSKLVGTVVGLLNIRMVGEASAEGKLELLQKARGHKKSVTAAFEEMKKAG
YDGGRIVMAHRNNAKFFQQFSELVKASFPTAVIDEVATSGLCSFYAEEGGLLMGYEVKA

Fig. 3 cont.

ORF2Z

SEQ. ID. NO. 10

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MKKYQVIIQDILTGIEEHRFKRGEKLPSIRQLREQYHCSKDTVQKAMLELKYQNKIYAVE
KSGYYILED R D F Q D H T C R A Q S Y R L S R I T Y E D F R I C L K E S L I G R E N Y L F N Y Y H Q Q E G L A E L
I S S V Q S L L M D Y H V Y T K K D Q L V I T A G S Q Q A L Y I L T Q M E T L A G K T E I L I E N P T Y S R M I E L I R
H Q G I P Y Q T I E R N L D G I D L E E L E S I F Q T G K I K F F Y T I P R L H N P L G S T Y D I A T K T A I V K L A K
Q Y D V Y I I E D D Y L A D F D S S H S L P L H Y L D T D N R V I Y I K S F T P T L F P A L R I G A I S L P N Q L R D I
F I K H K S L I D Y D T N L I M Q K A L S L Y I D N G M F A R N T Q H L H H I Y H A Q W N K I K D C L E K Y A L N I P Y
R I P K G S V T F Q L S K G I L S P S I Q H M F G K C Y Y F S G Q A D F L Q I F F E Q D F A D K L E Q F V R Y L N E

Fig. 3 cont.

ORF2Y

SEQ. ID. NO. 53

09767041 012201

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MKIIIPNAKEVNTNLENASFYLLSDRSKPVLDAISQFDVKKMAAFYKLNEAKAELEADRW
YRIRTGQAKTYPAWQLYDGLMYRYMDRRGIDSKEENYLRDHVRVATALYGLIHPFEFISP
HRLDFQGSLKIGNQSLKQYWRPYDQEVGDDELILSLASSEFEQVFSPQIQKRLVKILFM
EEKAGQLKVHSTISKKGGRLLSWLAKNNIQELSDIQDFKVDGFEYCTSESTANQLTFXR
SIKM

Fig. 3 cont.

ORF2X

SEQ. ID. NO. 11

109767041.042201

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MKKRSGRSKSSKFKLVNFALLGLYSITLCFLVTMYRYNILDFRYLNIVTLLLVGVAVL
AGLLMWRKKARIFTALLLVFSLVITSVGIYGMQEVVKFSTRLNSNSTFSEYEMSILVPAN
SDITDVRQLTSILAPAEYDQDNITALLDDISKMESTQLATSPGTSYLTAYQSMLNGESQA
MVFNQVFTNILENEDPGFSSKVKKIYSFKVTQTVETATKQVSGDSFNIYISGIDAYGPIS
TVSRSDVNIIMTVNRATHKILLTTTPRDSYVAFADGGQNQYDKLTHAGIYGVNASVHTLE
NFYGIDISNYVRLNFISFLQLIDLVGGLDVYNDQFTSLHGNYHFPVGQVHLNSDQALGF
VRERYSLTGGDNDRGKNQEKVIAALIKMSTPENLKNYQAILSGLEGSIQTDLSLETIMS
LVNTQLESQTQFTVESQALTGTGRSDLSSYAMPGSQLYMMEINQDSLEQSKAAIQSVLVE
K

Fig. 3 cont.

CPS2A

SEQ. ID. NO. 12

09767041.012201

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MNNQEVNAIEIDVLFLLKTIWRKKFLILLTAVLTAGLAFVYSSFLVTPQYDSTTRIYVVS
QNVEAGAGLTNQELQAGTYLAKDYREIILSQDVLTVATELNLKESLKEKISVSI PVDTR
IVSISVRDADPNEAARIANSLRTFAVQKVVEVTKVSDVTTLEEAVPAEPTTPNTKRNIL
LGILLAGGILATGLVLVMEVLDDRVRPQDIEEVMGLTLLGIVPDSKKLK

Fig. 3 cont.

CPS2B

SEQ. ID. NO. 13

T022T074029260

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MAMLEIARTKREGVNKTEEFNAIRTNIQLSGADIKVVGITSVKSNEGKSTTAASLAIAY
ARSGYKTVLVDADIRNSVMPGFFKPITKITGLTDYLAGTTDLSQLCDDIPNLTVIESG
KVSPNPTALLQSKNFENLLATLRRYYDYVIVDCPPLGLVIDAAIIAQKCDAMVAVVEAGN
VKCSSLKKVKEQLEQTGTFPLGVILNKYDIATEKYSEYGNYGKKA

Fig. 3 cont.

CPS2C

SEQ. ID. NO. 14

09767041.012201

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MIDIHSHIIFGVDDGPKTIEESLSLISEAYRQGVRYIVATSHRRKGMFETPEKIIMINFL
QLKEAVAEVYPEIRLCYGAELYYSKDILSKLEKKKVPTLNGSCYILLEFSTDTPWKEIQE
AVNEMTLLGLTPVLAHIERYDALAFQSERVEKLIDKGCYTQVNSNHVLKPALIGERAKEF
KKRTRYFLEQDLVHCVASDMHNLYSRPPFMREAYQLVKKEYGEDRAKALFKKNPLLILKN
QVQ

Fig. 3 cont.

CPS2D

SEQ. ID. NO. 15

T.022T.0 " T.4029250

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MNIEIGYRQTKLALFDMIAVTISAILTSHIPNADLNRSGIFIIMMVHYFAFFISRMPVEF
EYRGNLIEFEKTFNYSIIFVIFLMAVSFMLENNFALSRRGAVYFTLINFVLVYLFNVIIK
QFKDSFLFSTTYQKKTILITTAELWENMQVLFESDILFQKNLVALVILGTEIDKINLPLP
LYYSVEEAIGFSTREVVDYVFINLPSEYFDLKQLVSDFELLGIDVGVDINSFGFTVLKKNK
KIQMLGDHSIVTFSTNFYKPSHIWMKRLLDILGAVVGLIISGIVSILLIPIIRRDGGPAI
FAQKRVGQNGRIFTFYKFRSMFVDAEVRKKELMAQNQMGGMFKMDNDPRITPIGHFIRK
TSLDELPQFYNVVLIGDMSLVGTRPPTVDEFEKYTPSQKRRLSFKPGITGLWQVSGRSDIT
DFNEVVRLDLTYIDNWTIWSDIKILLKTVKVLLREGGQ

Fig. 3 cont.

CPS2E

SEQ. ID. NO. 16

09767041-012201

19/59

MRTVYIIGSKGIPAKYGGFETTFVEKLTEYQKDKSINYFVACTRENSAKSDITGEVFEHNG
ATCFNIDVPNIGSAKAILYDIMALKKSIEIAKDRNDTSPIFYILACRIGPFIYLFKKQIE
SIGGQLFVNPDGHEWLREKWSYPVRQYWKFSESLMLKYADLLICDSKNIEKYIHEDYRKY
APETSYIAYGTDLDKSRLSPTDSVVREWYKEKEISENDYYLVVGRFVPENNYEVMIREFM
KSYSRKDFVLI TNVEHNSFYEKLKKTGFDDKRIKFVGTVYNQELLKYIRENAFAYFHG
HEVGGTNPSLLEALSSTKLNLLLDVGFNREVGEAGAKYWNKDNLHRVIDSCEQLSQEQIN
DMDSLSTKQVKERFSWDFIVDEYEKLFKG

Fig. 3 cont.

CPS2F

SEQ. ID. NO. 17

09767044.012201

20/59

MKKILYLHAGAELYGADKVLELIKGLDKNEFEAHVILPNDGVLVPALREVGAQVEVINY
PILRRKYFNPKGIFDYFISYHHYSKQIAQYAIENKVDIIHNNTTAVLEGIYLRKRLKLPL
LWHVHEIIVKPKFISDSINFLMGRFADKIVTVSQAVANHIKQSPHIKDDQISVIYNGVDN
KVIFYQSDARSVRERFDIDEEALVIGMVGVRVNAWKQGDFLEAVAPILEQNPKAIAFIAGS
AFEGEEWRVVELEKKISQLKVSSQVXRMDYYANTTELYNMFDFVLPSTNPDPLPTVVLK
AMACGKPVVGYRHGGVCEMVKEGVNGFLVTPNSPLNLSKVILQSENINLRKKIGNNSIE
RQKEHFSLSYVKNFSKVYTSCLKVY

Fig. 3 cont.

CPS2G

SEQ. ID. NO. 18

T022T0 " T4029260

21/59

MKIISFTMVNNESEIIIESFIRYNYNFIDEMVIIDNGCTDNTMQIIFNLIKEGYKISVYDE
SLEAYNQYRLDNKYLTkIIAEKNPDLIIPLDADEFLTADSNPRKLEQLDLEKIHYVNWQ
WFVMTKKDDINDSFIPRRMQYCFEKPVWHHSDGKPVTKCIISAKYYKKMNLKLSMGHHTV
FGNPNVRIEHHNDLKFAHYRAISQEQLYKTICYTIRDIA TMENNIETAQRTNQMALIES
GVDMWETAREASYSGYDCNVIHAPIDLSFCKENIVIKYNELSRETVAERVMKTGREMAVR
AYNVERKQKEKKFLKPIIFVLDGLKGDEYIHPNPSNHLTILTEMYNVRGLLTDNHQIKFL
KVNYRLIITPDAKFLPHEFIVVPDXTDIEQVKSQYVGTGVDLSKIIISLKEYRKEIGFIG
NLYALLGFVPNMLNRIYLYIQRNGIANTI IKIKSRL.

Fig. 3 cont.

CPS2H

SEQ. ID. NO. 19

09767041-01201

22/59

MQADRRKTFGKMRIRINNLFVVAIAFMGIIISNSQVLAIGKASVIQYLSYLVILCIVN
DLLKNNKHIVVYKLGYLFLIIFLFTIGICQQILPITTKIYLSISMMIISVLATLPISLIK
DIDDFRRISNHLLFALFITSILGIKMGATMFTGAVEGIGFSQGFNGGLTHKNFFGITILM
GFVLTYLAYKYGSYKRTDRFILGLELFLILISNTRSVYLILLFLFLVNLDKIKIEQRQW
STLKYISMLFCAIFLYYFFGFLITHSDSYAHRVNGLINFFEYYRNDWFHLMFGAADLAYG
DLTLDYAIRVRRVLGWNGTLEMPLLSIMLKNGFIGLVGYGIVLYKLYRNVRLKTDNIKT
IGKSVFIIVLSATVENYIVNLSFVFMPICFCLLSISTMESTINKQLQT

Fig. 3 cont.

CPS2I

SEQ. ID. NO. 20

FOUO F4029460

23/59

MEKVSIIIVPIFNTKYLRECLDSIISQSYTNLEILLIDDGSSDSSTDICLEYAEQDGRIK
LFRLPNGGVSNARNYGIKNSTANYIMFVDSDDIVDGNIVESLYTCLKENDSDLGGGLLAT
FDGNYQESLQKCQIDLEEIKEVRDLGNENFPNHMSGIFNSPCKLYKNIYINQGFDE
QWLGEDLLFNLNYLKNIKKVRVYVNRNLYFARRSLQSTTNTFKYDVFIQLENLEKTFDLF
VKIFGGQYEFVFKETLQWHIIYYSLLMFKNDES LPKKLHIFKYLYNRHSLDTLSIKRT
SSVFKRICKLIVANNLFKIFLNTLIREEKND

Fig. 3 cont.

CPS2J

SEQ. ID. NO. 21

09767041.012201

24/59

MINISIIVPI YNVEQYLSKC INSIVNQTYK HIEILLVNDG STDNSEEICL AYAKKDSRIR
YFKKENGGLS DARNYGISRA KGDYLAIDS DDFIHSEFIQ RLHEAIEREN
ALVAVAGYDR VDASGHFLTA EPLPTNQAVL SGRNVCKKLL EADGHRFVVA WNKLYKKELF
EDFRFEKGKI HEDEYFTYRL LYELEKVAIV KECLYYYVDR ENSIITSSMT
DHRFHCLLEF QNERMDFYES RGDKELLLEC YRSFLAFAVL FLGKYNHWLS KQQKKLLQTL
FRIVYKQLKQ NKRLALLMNA YYLVGCLHLN FSVFLKTGKD KIQERLRRSE
SSTR

Fig. 3 cont.

CPS2K

SEQ. ID. NO. 22

T022T0" T4049260

25/59

MSKKSIVVSG LVYTIGTILV QGLAFITLPI YTRVISQEVY GQFSLYNSWV GLVGLFIGLQ
LGGAFGPGWV HFREKFDDFV STLMVSSIAF FLPIFGLSFL LSQPLSLLFG
LPDWVVPLIF LQSLMIVVQG FFTTYLVQRQ QSMWTLPLSV LSAVINTALS LFLTFFPMEND
FIARVMANPA TTGVLACVSX WFSQKKNGH FRKDYLRYGL SISIPLIFHG
LGHNVLNQFD RIMLGKMLTL SDVALYSFGY TLASILQIVF SSLNTVWCPW YFEKKRGADK
DLLSYVRYYL AIGLFVTFGF LTIYPELAML LGGSEYRFSM GFIPMIIVGV
FFVFLYSFPA NIQFYSGNTK FLPIGTFIAG VLNISVHFVL IPTKNLWCCF ATTASYLLLL
VLHYFVAKKK YAYDEVAIST FVKVIALVVV YTGLMTVFVG SIWIRWSLGI
AVLVVYAYIF RKELTVALNT FREKRSK

Fig. 3 cont.

CPS20

SEQ. ID. NO. 23

T02270 " T4029260

26/59

MVYIIAEIGC NHNGDVHLAR. KMVEVAVDCG VDAVKFQTFK ADLLISKYAP KAELYQKITG
ESDSQLEMTR RLELSFEEYL DLRDYCLEKG VDVSTPFDE ESLDFLISTD
MPVYKIPSGE ITNLPYLEKI GRQAKKVILS TGMAVMDEIH QAVKILQENG TTDISILHCT
TEYPTYPAL NLNVLHTLKK EFPNLTIGYS DHSVGSEVPI AAAAMGAELI
EKHFTLDNEM EGPDKASAT PDILAALVKG VRIVEQSLGK FEKEPEEEV RNKIVARKSI
VAKKAIKGE VFTEENITVK RPGNGISPME WYKVLGQVSE QDFEEDQNIC
HSAFENQM

Fig. 3 cont.

CPS2P

SEQ. ID. NO. 24

T022T041.01201

27/59

MKKICFVTGS RAEYGIMRRL LSYLQDDPEM ELDLVVTAMH LEEKYGMTVK DIEADKRRIV
KRIPLHLTDT SKQTIVKSLA TLTEQLTVLF EEVQYDLVLI LGDRYEMPLV
ANAALLYNIP ICHIHGGEKT MGNFDESIRH AITKMShLHL TSTDEFNRV IQLGENPTMY

Fig. 3 cont.

CPS2Q

SEQ. ID. NO. 25

09767041-012201

28/59

MELGIDFAED YYVLFHPVT LEDNTAEEQT QALLDALKED GSQCLIIGSN SDTHADKIME
LMHEFVKQDS DSYIFTSLPT RYYHSLVKHS QGLIGNSSSG LIEVPSLQVP
TLNIGNRQFG RLSGPSVVHV GTSKEAIVGG LGQLRDVIDF TNPFEQPSA LQGYRAIKEF
LSVQASTMKE FYDR

Fig. 3 cont.

CPS2R

SEQ. ID. NO. 26

F022T01-01201-09760

29/59

MKKVAFLGAG TFS DGVL PWL DRTRYELIGY FEDKPISDYR GYPVFGPLQD VLTYLDDGKV
DAVFVTIGDN VKRKEIFDLL AKDHYDALFN IISEQANIFS PDSIKGRGVF
IGFSSFVGAD SYVYDNCIIN TGAIVEHHTT VEAHCNITPG VTINGLCRIG ESTYIGSGST
VIQCIEIAPY TTLGAGTVVL KSLTESGTYV GVPARKIK

Fig. 3 cont.

CPS2S

SEQ. ID. NO. 27

09767041.012201

30/59

MEPICLIPAR SGSKGLPNKN MLFLDGVPMI FHTIRAAIES GCFKKENIYV STDSEVYKEI
CETTGVQVLM RPADLATDFT TSFQLNEHFL QDFSDDQVFV LLQVTSPLRS
GKHVKEAMEL YGKGQADHVV SFTKVDKSPT LFSTLDENG F AKDIAGLGGS YRRQDEKTL Y
YPNGAIYISS KQAYLADKTY FSEKTAAYVM TKEDSIDVDD HFDFTGVIGR
IYFDYQRREQ QNKPFYKREL KRLCEQRVHD SLVIGDSRLL ALLLDGFDNI SIGGMTASTA
LENQGLFLAT PIKKVLLSLG VNDLITDYPL HMIEDTIRQL MESLVSKAEQ
VFVTTIAYTL FRDSVSNEEI VQLNDVIVQS ASELGISVID LNEVVEKEAM LDYQYTNDGL
HFNQIGQERV NQLILTSLTR

Fig. 3 cont.

CPS2T

SEQ. ID. NO. 28

T022T0" T409460

WO 00/05378		31/59		PCT/NL99/00460		
ATCGCCAAAC	GAAATTGG	TTATTTGATA	TGATAGCAGT	TGCAATTTCT	CAATCTTAA	CAAGTCATAT
ACCAAATGCT	GATTTAAATC	GTTCTGGAAT	TTTTATCATA			
ATGATGGTTC	ATTATTTTGC	ATTTTTTATA	TCTCGTATGC	CAGTTGAATT	TGAGTATAGA	GGTAATCTGA
TAGAGTTTGA	AAAAACATTT	AACATATAGTA	TAATATTTGC			
AATTTTCTT	ACGGCAGTAT	CATTTTGT	GGAGAATAAT	TTCGCACTTT	CAAGACGTGG	TGCCGTGTAT
TTACATTAA	TAAACTTCGT	TTTGGTATAC	CTATTTAACG			
TAATTATTAA	GCAGTTTAAG	GATAGCTTTC	TATTTTCGAC	AATCTATCAA	AAAAAGACGA	TTCTAATTAC
AACGGCTGAA	CGATGGGAAA	ATATGCAAGT	TTTATTTGAA			
TCACATAAAC	AAATTCAAAA	AAATCTTGTT	GCATTGGTAG	TTTTAGGTAC	AGAAATAGAT	AAAATTAATT
TATCATTACC	GCTCTATTAT	TCTGTGGAAG	AAGCTATAGA			
GTTTTCAACA	AGGGAAGTGG	TCGACCACGT	CTTTATAAAT	CTACCAAGTG	AGTTTTTAGA	CGTAAAGCAA
TTCGTTTTCAG	ATTTTGAGTT	GTTAGGTATT	GATGTAAGCG			
TTGATATTAA	TTCATTCCGGT	TTTACTGCGT	TGAAAAACAA	AAAAATCCAA	CTGCTAGGTG	ACCATAGCAT
TGTAACTTTT	TCCACAAATT	TTTATAAGCC	TAGTCATATC			
ATGATGAAAC	GACTTTTGGG	TATACTCGGA	GCGGTAGTCG	GGTTAATTAT	TTGTGGTATA	GTTTCTATTT
TGTTAGTTCC	AATTATTTCGT	AGAGATGGTG	GACCGGCTAT			
TTTTGCTCAG	AAACGAGTTG	GACAGAATGG	ACGCATATTT	ACATTCTACA	AGTTTCGATC	GATGTATGTT
GATGCTGAGG	AGCGCAAAAA	AGACTTGCTC	AGCCAAAAAC			
AGATGCAAGG	GTGGGTATGT	TTTAAAATGG	GAAAAACGAT	CCTAGAATTA	CTCCAATTGG	ACATTTTCATA
CGCAAAAAACA	AGTTTAGACG	AGTTACCACA	GTTTTATAAT			
GTTTTAATTG	GCGATATGAG	TCTAGTTGGT	ACACGTCCAC	CTACAGTTGA	TGAATTTGAA	AAATATACTC
CTGGTCAAAA	GAGACGATTG	AGTTTTAAAC	CAGGGATTAC			
AGGTCCTCTGG	CAGGTTAGTG	GTCGTAGTAA	TATCACAGAC	TTGCACGACG	TAGTTCGGTT	GGACTTAGCA
TACATTGATA	ATTGGACTAT	CTGGTCAGAT	ATTAAAAATT			
TATTAAAGAC	AGTGAAAAGT	GTATTGTTGA	GAGAGGGAAG	TAAGTAAAAG	TATATGAAAG	TTTGTTTGGT
CGGTTCTTCA	GGGGGACATT	TGACTCACTT	GTATTTGTTA			
AAACCGTTTT	GGAAAGGAAGA	AGAACGTTTT	TGGGTAACAT	TTGATAAAGA	GGATGCAAGA	AGTCTTTTGA
AGAATGAAAA	AATGTATCCA	TGTTACTTTT	CAACAAATTC			
CAATCTCATT	AATTTAGTGA	AAAAATCTTT	CCTAGCTTTC	AAAATTTTAC	GTGATGAGAA	ACCAGATGTT
ATTATTTTAT	CTGGTGCGGC	CGTTGCTGTC	CCCTTCTTTT			
ACATCGGAAA	ACTATTTGGA	GCAAAGACGA	TTTATATTGA	AGTATTTGAT	CGAGTTAATA	AATCTACATT
AACTGGAAAA	CTAGTTTATC	CCGTAACAGA	TATTTTTATT			
GTTTCAGTGGG	AAGAAATGAA	GAAGGTATAT	CCTAAATCTA	TTAACTTGGG	GAGTATTTTT	TAATGATTTT
TGTAACAGTA	GGAACTCATG	AACAACAGTT	TAAATCGATTG			
ATAAAAGAGA	TTGATTTTAT	GAAAAAAAAT	GGAAAGTATAA	CCGACGAAAT	ATTTATTCAA	ACAGGATATT
CTGACTATAT	TCCAGAATAT	TGCAAGTATA	AAAAATTTCT			
CAGTTACAAA	GAAATGGAAC	AATATATTAA	CAAATCAGAA	GTAGTTATTT	GCCACGGAGG	CCCCGCTACT
TTTATGAATT	CATTATCCAA	AGGAAAAAAA	CAATTATTGT			
TTCTAGACA	AAAAAAGTAT	GGTGAACATG	TAAATGATCA	TCAAGTAGAG	TTTGTAAGAA	GAATTTTACA
AGATAATAAT	ATTTTATTTA	TAGAAAAATAT	AGATGATTTG			
TTTGAAAAAA	TTATTGAAGT	TTCTAAGCAA	ACTAACTTTA	CATCAAATAA	TAATTTTTTT	TGTGAAAGAT
TAAAACAAAT	AGTTGAAAAA	TTTAATGAGG	ATCAAGAAAA			
TGAATAATAA	AAAAGATGCA	TATTTGATAA	TGGCTTATCA	TAATTTTTCT	CAGATTTTAC	TGGAGAGGGA
TACAGATATT	ATCATCTTCT	CTCAGGAGAA	TGCACACCAT			
TAGTTCCCTC	AGAATACCTG	TATAATTATT	TTAAATATTC	TCAGGATTTA	TATGTTGAAT	TTACAAAAGA
TGAGCAAAAA	TATAAAGAAA	ATAGGATATA	TGAACGAGTT			
AAATGTTTACA	GATTATTTCC	TAAATATATCA	GAAAAAACTA	TTGATAATGT	ACTGTTTAGA	ATTTTATTAA
GAATGTATCG	AGCTTTTGAA	TACTATTTAC	AAAGATTGTT			
GTTTATTGAT	AGAATAAAAA	ACATGGTCTA	AGAATAAGAT	TTGGTTCTAA	TTGGGTTTCG	CTTCCACATG
ATTTTGTGGC	AATTCTTTTA	TCAAATGAAA	ACGAAACAGC			
TTATTTATTT	AAGTAATCTA	AATGTCCAGA	TGAATATTT	ATACAGACAA	TTATAGAAAA	ATATGAATTT
TCAAATAGAT	TATCTAAATA	TGGAAATTTA	AGATATATAA			
AGTGGAAAAA	ATCAACATCT	TCTCCTATTG	TCTTTACAGA	TGATTCTATT	GATGAATTGC	TAAATGCAAG
AAATTTAGGT	TTTTTATTTG	CTAGAAAAGT	AAAAATAGAA			
AATAAATCTA	AATTTAAAGA	AATTATTACT	AAAAAATAAA	ATAGTTGATT	TTGTGAGAGT	AATGTATGTT
TAAATTATTT	AAATATGACC	CGGAATATTT	TATTTTTAAG			
TACTTCTGGT	TGATTATTTT	TATCCAGAG	CAAAAGTATG	TATTTTTATT	AATTTTTATG	AATTTAATTT
TATTTCATAT	AAAAATTTTT	AAAACTAAGC	TAATATTAAG			
AAATGAAATT	TTATTGTTTT	TATTATGCTC	TATTATTAGT	TTTGTTTCAG	TAGTCACAAG	TATGTTTGT
GAAATAAATT	TTGAAAGATT	ATTTGCAGAT	TTTACTGCTC			
CCATAAATTTG	GATTATTGCA	ATAATGTATT	ATAATTTGTA	TTCATTTATA	AATATTGATT	ATAAAAAATT
AAAAAATAGT	ATCTTTTTTTA	GTTTTTTAGT	TTTATTAGGT			
ATATCTGCAT	TGTATATTAT	TCAAAATGGG	AAAGATATTG	TATTTTTTGA	CAGACACCTT	ATAGGACTAG
ACTATCTTAT	AACAGGCGTC	AAAACAAGGT</				

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TACCGATCTA TTTAAGTGGG TCGAGAATTG GTAGTTTATC GCTAGCAATA TTAATTATAT GCTTGTATG
GAGATATATA GGTGGGAAAT TTGCTTGGAT AAAAAAGCTA
ATAGTAATAT TTGTAATACT ACTTATTATT TTAAATACTG AATTGCTTTA CCATGAAATT TTGGCTGTTT
ATAATTCTAG AGAATCAAGT AACGAAGCTA GATTTATTAT
TTATCAAGGA AGTATTGATA AAGTATTAGA AAACAATATT TTATTTGGAT ATGGAATATC CGAATATTCA
GTTACGGGAA CTTGGCTCGG AAGTCATTCA GGCTATATAT
CATTTTTTTA TAAATCAGGA ATAGTTGGGT TGATTTTACT GATGTTTTCT TTTTTTTATG TTATAAAAAA
AAGTTATGGA GTTAATGGGG AAACAGCACT ATTTTATTTT
ACATCATTAG CCATATTTT CATATATGAA ACAATAGATC CGATTATTAT TATATTAGTA CTATTCCTTT
CTTCAATAGG TATTTGGAAT AATATAAATT TTAATAAGGA
TATGGAGACA AAAAATGAAT GATTTAATTT CAGTTATTGT ACCAATTTAT AATGTCCAAG ATTATCTTGA
TAAATGTATT AACAGTATTA TTAACCAAAC ATATACTAAT
TTAGAGGTTA TTCTCGTAAA TGATGGAAGT ACTGATGATT CTGAGAAAAT TTGCTTAAAC TATATGAAGA
ACGATGGAAG AATTAAATAT TACAAGAAAA TTAATGGCGG
TCTAGCAGAT GCTCGAAATT TCGGACTAGA ACATGCAACA GGTAAATATA TTGCTTTTGT CGATTCTGAT
GACTATATAG AAGTTGCAAT GTTCGAGAGA ATGCATGATA
ATATACTGA GTATAATGCC GATATAGCAG AGATAGATTT TTGTTTAGTA GACGAAAACG GGTATACAAA
GAAAAAAGA AATAGTAATT TTCATGTCTT AACGAGAGAA
GAGACTGTAA AAGAATTTTT GTCAGGATCT AATATAGAAA ATAATGTTTG GTGCAAGCTT TATTCACGAG
ATATTATAAA AGATATAAAA TTCCAAATTA ATAATAGAAG
TATTGGTGAG GATTTGCTTT TTAATTTGGA GGTCTTGAAC AATGTAACAC GTGTAGTAGT TGATACTAGA
GAATATTATT ATAATTATGT CATTCGTAAC AGTTCGCTTA
TTAATCAGAA ATTCTCTATA AATAATATTG ATTTAGTCAC AAGATTGGAG AATTACCCCT TTAAGTTAAA
AAGAGAGTTT AGTCATTATT TTGATGCAAA AGTTATTAAA
GAGAAGGTTA AATGTTTTAA CAAAATGTAT TCAACAGATT GTTTGGATAA TGAGTTCTTG CCAATATTAG
AGTCTTATCG AAAAGAAATA CGTAGATATC CATTTATTAA
AGCGAAAAGA TATTTATCAA GAAAGCATT AGTTACGTTG TATTTGATGA AATTTTCGCC TAAACTATAT
GTAATGTTAT ATAAGAAATT TCAAAGCAG TAGAGGTTAA
AATGGATAAA ATTAGTGTTA TTGTTCCAGT TTATAATGTA GATAAATATT TAAGTAGTTG TATAGAAAGC
ATTATTAATC AAAATTATAA AAATATAGAA ATATTATTGA
TAGATGATGG CTCTGTAGAT GATTCTGCTA AAATATGCAA GGAATATGCA GAAAAAGATA AAAGAGTAAA
AATTTTTTTC ACTAATCATA GTGGAGTATC AAATGCTAGA TTGTTGACTC TGATGATGTT GTTGATAGTA
AATCATGGAA TAAAGCGGAG TACAGCTGAA TATATTATGT
GATTAGTAGA AAAATTATAT TTTAATATTA TAAAAAGTAG
AAGTGATTTA TCTGGTTGTT TGTACGCTAC TTTTTCAGAA AATATAAATA ATTTTGAAGT GAATAATCCA
AATATTGATT TTGAAGCAAT TAATACCGTG CAGGACATGG
GAGAAAAAAA TTTTATGAAT TTGTATATAA ATAATATTTT TTCTACTCCT GTTTGTAAAC TATATAAGAA
AAGATACATA ACAGATCTTT TTCAAGAGAA TCAATGGTTA TAGATAGAGT TAGTTATTTG ACTGAACATC
GGAGAAGATT TACTTTTTTAA TCTGCATTAT TTAAAGAATA
TTTATTTTTT TAGGAGAGGT ATACTAAGTA CAGTAAATTC
TTTTAAAGAA GGTGTGTTTT TGCAATTGGA AAATTTGCAA AAACAAGTGA TAGTATTGTT TAAGCAAATA
TATGGTGAGG ATTTTGACGT ATCAATTGTT AAAGATACTA
TACGTTGGCA AGTATTTTAT TATAGCTTAC TAATGTTTAA ATACGGAAAA CAGTCTATTT TTGACAAATT
TTTAATTTTT AGAAATCTTT ATAAAAAATA TTATTTTAACT
TTGTTAAAAG TATCTAACAA AAATCTTTG TCTAAAAATT TTTGTATAAG AATTGTTTCG AACAAAGTTT
TTAAAAAAT ATTATGGTTA TAATAGGAAG ATATCATGGA
TACTATTAGT AAAATTTCTA TAATTGTACC TATATATAAT GTAGAAAAAT ATTTATCTAA ATGTATAGAT
AGCATTGTAA ATCAGACCTA CAAACATATA GAGATTCTTC
TGGTGAATGA CGGTAGTACG GATAATTCGG AAGAAATTTG TTTAGCATAT GCGAAGAAAG ATAGTCGCAT
TCGTTATTTT AAAAAAGAGA ACGGCGGGCT ATCAGATGCC
CGTAATTATG GCATAAGTCG CGCCAAGGGT GACTACTTAG CTTTTATAGA CTCAGATGAT TTTATTCATT
CGGAGTTTAT CCAACGTTTA CACGAAGCAA TTGAGAGAGA
GAATGCCCTT GTGGCAGTTG CTGGTTATGA TAGGGTAGAT GCTTCGGGGC ATTTCTTAAAC AGCAGAGCCG
CTTCTACAA ATCAGGCTGT TCTGAGCGGC AGGAATGTTT
GTAAAAAGCT GCTAGAGGCG GATGGTCATC GCTTTGTGGT GGCCTGTAAT AACTCTATA AAAAAGAACT
ATTTGAAGAT TTTCGATTG AAAAGGGTAA GATTCATGAA
GATGAATACT TCACTTATCG CTGCTCTAT AAGTTGCAAT AGTTAAGGAG TGCTTGACT
ATTATGTTGA CCAGAAAAAT AGTATCACAA CTTCTAGCAT
GACTGACCAT CGCTTCATT GCCTACTGGA ATTTCAAAAT GAACGAATGG ACTTCTATGA AAGTAGAGGA
GATAAGAGC TCTTACTAGA GTGTTATCGT TCATTTTATG
CCTTTGCTGT TTTGTTTTTA GGCAATATA ATCATTGGTT GAGCAAACAG CAAAAGAAGC TT

Fig. 4 cont.

SEQ. ID. NO. 29

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RQTKLALFDM IAVAISAILT SHIPNADLNR SGIFIIMMVH YFAFFISRMP VEFYRGNLI
EFEKTFNYSI IFAIFLTAVS FLENNFALS RRGAVYFTLI NFVLVYLFNV
IIKQFKDSFL FSTIYQKTTI LITTAERWEN MQVLFESHKQ IQKNLVALVV LGTEIDKINL
SLPLYYSVEE AIEFSTREVV DHVFINLPSE FLDVKQFVSD FELLGIDVSV
DINSFGFTAL KNKKIQLLGD HSIVTFSTNF YKPSHIMMKR LLDILGAVVG LIICGIVSIL
LVPIIRRDGG PAIFAQKRVG QNGRIFTFYK FRSMYVDAEE RKKDLLSQNQ
MQGWVCFKMG KTILELLQLD ISYAKTSLDE LPQFYNVLIG DMSLVGTRPP TVDEFEKYTP
GQKRRLSFKP GITGLWQVSG RSNITDFDDV VRDLAYIDN WTIWSDIKIL
LKTVKVLLR EGSK

Fig. 4 cont.

CPS1E

SEQ. ID. NO. 30

T022T0 " T4029250

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MKVCLVGSSG GHLTHLYLLK PFWKEERFW VTFDKEDARS LLKNEKMYPC YFPTNRNLIN
LVKNTFLAFK ILRDEKPDVI ISSGAAVAVP FFYIGKLFGA KTIYIEVFDR
VNKSTLTGKL VYPVTDIFIV QWEEMKKVYP KSINLGSIF

Fig. 4 cont.

CPS1F

SEQ. ID. NO. 31

F022T0 " F4029260

WO 00/05378

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PCT/NL99/00460

MIFVTVGTHE QQ...IKEI DLLKNGSIT DEIFIQTGYS DYI...KYK KFLSYKEMEQ
YINKSEVVIC HGGPATFMNS LSKGKKQLLF PRQKKYGEHV NDHQVEFVRR
ILQDNNILFI ENIDDLFEKI IEVSKQTNFT SNNNFFCERL KQIVEKFED QENE

Fig. 4 cont.

CPS1G

SEQ. ID. NO. 32

09767041-012201

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MFKLFKYDPE	YF Y FKYFWLI	IFIPEQKYVF	LLIFMNLILF	HIKFLKTKLI	LKNEILLFLL
WSILCFVSVV	TSMFVEINFE	RLFADFTAPI	IWI I AIMYYN	LYSFINIDYK	
KLKNSIFFSF	LVLLGISALY	IIQNGKDIVE	LDRHLIGLDY	LITGVKTRLV	GFMNYPTLNT
TTIIVSIPLI	FALIKNKMQQ	FFFCLAFIP	IYLSGSRIGS	LSPLAILIIC	
LLWRYIGGKF	AWIKKLIVIF	VILLIILNTE	LLYHEILAVY	NSRESSNEAR	FIIYQGSIDK
VLENNILFGY	GISEYSVTGT	WLGSHSGYIS	FFYKSGIVGL	ILLMFSFFYV	
IKKSYGVNGE	TALFYFTSLA	IFFIYETIDP	IIIIILVLFFS	SIGIWNNINF	KKDMETKNE

Fig. 4 cont.

CPS1H

SEQ. ID. NO. 33

FOUO " F4029260

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MNDLISVIVP IYNVQDYLDK CINSIINQTY TNLEVILVND GSTDDSEKIC LNYMKNDGRI
KYYKKINGGL ADARNEGLEH ATGKYIAFVD SDDYIEVAMF ERMHDNITEY
NADIAEIDFC LVDENGYTKK KRNSNFHVLV REETVKEFLS GSNIENNVWC KLYSRDIKD
IKFQINNRSI GEDLLFNLEV LNNVTRVVVD TREYYNYVI RNSSLINQKF
SINNIDLVTR LENYPFKLKR EFSHYFDAKV IKEKVKCLNK MYSTDCLDNE FLPILESYRK
EIRRYPFKA KRYLSRKHLV TLYIMKFSPK LYVMLYKKFQ KQ

Fig. 4 cont.

CPS1I

SEQ. ID. NO. 34

T022T0" T4029260

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MDKISVIVPV YNVDKYLSSC IESIINQNYK NIEILLIDDG SVDDSAKICK EYEKDKRVKI
FFTNHSGVSN ARNHGIKRST AEYIMFVDSO DVVDSRLVEK LYFNIIKSRS
DLSGCLYATF SENINNFEVN NPNIDFEAIN TVQDMGEKNF MNLXXNNIFS TPVCXLYQKR
YITDLFQENQ WLGEDLLFNL HYLKNIDRVS YLTEHLYFYR RGILSTVNSF
KEGVFLQLEN LQKQVIVLFK QIYGEDFDVS IVKDTIRWQV FYYSLLMFKY GKQSIFDKFL
IFRNLYKKYY FNLLKVSNN SLSKNFCIRI VSNKVFKKIL WL

Fig. 4 cont.

CPS1J

SEQ. ID. NO. 35

T022T0 "T4029260

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MDTISKISII VPIYNVEKYL SKCIDSIVNQ TYKHIEILLV NDGSTDNSEE ICLAYAKKDS
RIRYFKKENG GLSDARNYGI SRAKGDYLAF IDSDDFIHSE FIQRLHEAIE
RENALVAVAG YDRVDASGHF LTAEPLPTNQ AVLSGRNVCK KLEADGHRF VVACNKLYKK
ELFEDFRFEK GKIHEDEYFT YRLLYELEKV AIVKECLYYY VDRENSITTS
SMTDHRFHCL LEFQNERMDF YESRGDKELL LECYRSFLAF AVLFLGKYNH WLSKQKKK

Fig. 4 cont.

CPS1K

SEQ. ID. NO. 36

T0022T0" T4029260

Fig. 5
DNA Sero type 9

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PCT/NL99/00460

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AAGCTTATCG	TCAAGGTGTT	CGCTATATCG	TGGCGACATC	TCATAGACGA	AAAGGGATGT
TTGAAACACC	AGAAAAAGTT	ATCATGACTA	ACTTTCTTCA	ATTTAAAGAC	
GCAGTAGCAG	AAGTTTATCC	TGAAATACGA	TTGTGCTATG	GTGCTGAATT	GTATTATAGT
AAAGATATAT	TAAGCAAAC	TGAAAAAAG	AAAGTACCCA	CACTTAATGG	
CTCGCGCTAT	ATTCTTTTGG	AGTTCAGTAG	TGATACTCCT	TGGAAAGAGA	TTCAAGAAGC
AGTGAACGAA	GTGACGCTAC	TTGGGCTAAC	TCCCGTACTT	GCCCATATAG	
AACGATATGA	CGCCCTAGCG	TTTCATGCAG	AGAGAGTAGA	AGAGTTAATT	GACAAGGGAT
GCTATACTCA	GGTAAATAGT	AATCATGTGC	TGAAGCCAC	TTTAATTGGT	
GATCGAGCAA	AAGAATTTAA	AAAACGTA	CGGTATTTTT	TAGAGCAGGA	TTTAGTACAT
TGTGTTGCTA	GCGATATGCA	TAATTTATCT	AGTAGACCTC	CGTTTATGAG	
GGAGGCTTAT	AAGTTGCTAA	CAGAGGAATT	TGGCAAAGAT	AAAGCGAAAG	CGTTGCTAAA
AAAGAATCCT	CTTATGCTAT	TAAAAAACCA	GGCGATTTAA	ACTGGTTACT	
CTAGATTGTG	GAGAGAAAAA	TGGATTTAGG	AACTGTTACT	GATAAACTGT	TAGAACGCAA
CAGTAAACGA	TTGATACTCG	TGTGCATGGA	TACGTGCTCT	CTTATAGTTT	
CCATGATTTT	GAGCAGACTG	TTTTTGGATG	TTATTATTGA	CATACCAGAT	GAACGCTTCA
TTCTTGCACT	TTTATTCGTA	TCAATTTTAT	ATTTGATTCT	ATCGTTTAGA	
TTAAAGTCT	TTTCATTAAT	TACGCGTTAC	ACAGGGTATC	AGAGTTATGT	AAAAATAGGA
CTTAGTTTAA	TATCTGCGCA	TTCATTGTTT	TTAATTATCT	CAATGGTGT	
GTGGCAGGCT	TTTAGTTATC	GTTTCATCTT	AGTATCCTTA	TTTTTGTCGT	ATGTAATGCT
CATTACTCCG	AGGATTGTTT	GGAAAGTCTT	ACATGAGACG	AGAAAAAATG	
CTATCCGTAA	GAAGGATAGC	CCACTAAGAA	TCTTAGTAGT	AGGTGCTGGA	GATGGTGGA
ATATTTTTAT	CAATACTGTC	AAAGATCGAA	AATTGAATTT	TGAAATTGTC	
GGTATCGTTG	ATCGTGATCC	AAATAAACTT	GGAAACATTTA	TCCGTACGGC	TAAAGTTTTA
GGAAACCGTA	ATGATATTTT	ACGACTGGTA	GAGGAATTAG	CTGTTGACCA	
AGTGACGATT	GCCATCCCTT	CTTTAAATGG	TAAGGAGCGA	GAGAAGATTG	TTGAAATCTG
TAACACTACA	GGAGTGACCG	TCAATAATAT	GCCGAGTATT	GAAGACATTA	
TGGCGGGGAA	CATGCTGTCT	AGTGCCTTTC	AGGAAATTGA	CGTAGCAGAC	CTTCTTGGTC
GACCAGAGGT	TGTTTTGGAT	CAGGATGAAT	TGAATCAGTT	TTTCCAAGGG	
AAAACAATCC	TTGTCACAGG	AGCAGGTGGC	TCTATCGGTT	CAGAGCTATG	TCGTCAAATT
GCTAAGTTTAA	CGCCTAAACG	CTTGTTGTTG	CTTGGACATG	GAGAAAAATC	
AATCTATCTC	ATTCATCGAG	AGTTACTGGA	AAAGTACCAA	GGTAAGATTG	AGTTGGTCCC
TCTCATTGCA	GATATTCAAG	ATAGAGAATT	GATTTTTAGC	ATAATGGCTG	
AATATCAACC	CGATGTTGTT	TATCATGCTG	CAGCACATAA	GCATGTTCC	TTGATGGAAT
ATAATCCACA	TGAAGCAGTG	AAGAATAATA	TTTTTGGAAC	GAAGAATGTG	
GCTGAGGCGG	CTAAACTGTC	AAAGGTTGCC	AAATTTGTTA	TGGTTTCAAC	AGATAAAGCT
GTTAATCCAC	CAAATGTCAT	GGGAGCGACT	AAACGTGTTG	CAGAAATGAT	
GTTTACAGGT	TTAAACGAGC	CAGGTCAGAC	TCAATTTGCG	GCAGTCCGGT	TTGGGAATGT
TCTAGGTAGT	CGTGGAAGTG	TTGTTCCGCT	ATTCAAGAG	CAAATTAGAA	
AAGGTGGACC	TGTTACGGTT	ACCGACTTTA	GGATGACTCG	TTATTTTCATG	ACGATTCCTG
AGGCAAGTCG	TTTGTTATATC	CAAGCTGGAC	ATTTGGCAAA	AGGTGGAGAA	
ATATTTGTCT	TGGATATGGG	CGAGCCAGTA	CAAATCCTGG	AATTGGCAAG	AAAAGTTATC
TTGTTAAGTG	GACACACAGA	GGAAGAAATC	GGGATTGTAG	AATCTGGAAT	
CAGACCGGCG	GAGAAACTCT	ACGAGGAATT	ATTATCAACA	GAAGAACGTG	TCAGCGAACA
GATTCATGAA	AAAAATATTTG	TGGGTCGCGT	TACAAATAAG	CAGTCGGACA	
TTGTCAATTC	ATTTATCAAT	GGATTACTCC	AAAAAGATAG	AAATGAATTA	AAAAATATGT
TGATTGAATT	TGCAAAACAA	GAATAAGAAA	GTAAAAAATA	TTTTTACTTT	
CCTAGAGTTT	AAACGATGTT	TAAGTTCTAG	GAAGGTTAGA	ATACCTAATT	AACAACAATA
TTACTATTTA	TTAAGAGTCA	GATAATAGCA	ACTAAGTGCT	ACAAACTATC	
TTTATAATAA	GTATATTTGG	TCAAAAGGGA	GATGTGAAAT	GTATCCAATT	TGTAAACGTA
TTTAGCAAT	TATTATCTCA	GGGATTGCTA	TTGTTGTTCT	GAGTCCAATT	
TTATTATTGA	TTGCATTGGC	AATTAAATTA	GATTCTAAAG	GTCCGGTATT	ATTTAAACAA
AAGCGGGTTG	GTAAAAACAA	GTCATACTTT	ATGATTTATA	AATTCCGTTT	
TATGTACGTT	GACGCACCAA	GTGATATGCC	GACTCATCTA	TTAAAGGATC	CTAAGGCGAT
GATTACCAAG	GTGGGCGCGT	TTCTCAGAAA	AACAAGTTTA	GATGAACTGC	
CACAGCTTTT	TAATATTTTT	AAAGGTGAAA	TGGCGATTGT	TGGTCCACGC	CCAGCCTTAT
GGAATCAATA	TGACTTAATT	GAAGAGCGAG	ATAAATATGG	TGCAAAATGAT	
ATTCGTCCTG	GACTAACC	TTGGGCTCAA	ATTAATGGTC	GTGATGAATT	GGAAATTGAT
GAAAAGTCAA	AATTAGATGG	ATATTATGTT	CAAAATATGA	GTCTAGGTTT	
GGATATTAAA	TGTTTCTTAG	GTACATTCCT	CAGTGTAGCC	AGAAGCGAAG	GTGTTGTTGA
AGGTGGAACA	GGGCAGAAAG	GAAAAGGATG	AAATTTTCAG	TATTAATGTC	
GGTCTATGAG	AAAGAAAAAC	CAGAGTTTCT	TAGGGAATCT	TTGGAAAGCA	TCCTTGTCAA
TCAAACAATG	ATTCCAACGG	AGGTTGTCTT	GGTAGAGGAT	GGGCCACTCA	
ATCAGAGCTT	ATATAGTATT	TTAGAAGAAT	TTAAAAGTCG	ATTTTCATTT	TTTAAACGA
TAGCCTTGGA	AAAGAATTCG	GGTTTAGGAA	TTGCACTGAA	TGAAGGTTTG	
AAACATTGTA	ATTATGAGTG	GGTTTGACG	AAATGGATT	TGATGATGTT	GCATATACAT
ACACGTTTTG	AAAAGCAAGT	TAACTTTATA	AAACAAAACC	CGACTATAGA	

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TATTGAGATA GATGAGTTCT TAAATTCTAC TAGTGAAATA GTTCTCATA AAAATGTTCC
AACCCAGCAC GATGAAATAT TAAAGATGGC AAGGCGGGAG AAATCCATGT
GCCACATGAC TGTAAATGTTT AAAAAGAAAA GTGTCGAGAG AGCAGGGGGG TATCAAACAC
TTCCGTACGT AGAAGATTAT TTCCTTTGGG TGCGCATGAT TGCTTCAGGA
TCGAAATTTG CAAACATTGA TGAAACACTA GTTCTTGACAC GTGTTGGAAA TGGGATGTTC
AATAGGAGGG GGAACAGAGA ACAAATTAAC AGTTGGACAT TACTAATTGA
ATTTATGTTA GCTCAAGGAA TTGTTACACC ACTAGATGTA TTTATTAATC AAATTTACAT
TAGGGTCTTT GTTTATATGC CAACTTGGAT AAAGAACTC ATTTATGGAA
AAATCTTAAG GAAATAGTAT GATTACAGTA TTGATGGCTA CATATAATGG AAGCCCATTT
ATAATAAAC AGTTAGATTC AATTCGAAAT CAAAGTGTAT CAGCAGACAA
AGTTATTATT TGGGATGATT GCTCGACAGA TGATACAATA AAAATAATAA AAGATTATAT
AAAAAATAT TCTTTGGATT CATGGGTTGT CTCTCAAAAT AAATCTAATC
AGGGGCATTA TCAAACATTT ATAAATTTGA CAAAGTTAGT TCAGGAAGGA ATAGTCTTTT
TTTCAGATCA AGATGATATT TGGGACTGTC ATAAATTTGA GACAATGCTT
CCAATCTTTG ACAGAGAAAA TGTATCAATG GTGTTTTGCA AATCCAGATT GATTGATGAA
AACGGAATA TTATCAGTAG CCCAGATACT TCGGATAGAA TCAATACGTA
CTCTCTAGA
```

Fig. 5 cont.

SEQ. ID. NO. 37

T022T0 " T4029260

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AYRQGVRYIV ATSHRRKGMF ETPEKVIMTN FLQFKDAVAE VYPEIRLCYG AELYYSKDIL
SKLEKKKVPT LNGSRYILLE FSSDTPWKEI QEAVNEVTLL GLTPVLAHIE
RYDALAFHAE RVEELIDKGC YTQVNSNHVL KPTLIGDRAK EFKKRTRYFL EQDLVHCVAS
DMHNLSSRPP FMREAYKLLT EEF GKDKAKA LLKKNPLMLL KNQAI

Fig. 5 cont.

CPS9D

SEQ. ID. NO. 38

T022T0 " T4029460

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MDLGTVTDKL	LERNKRLIL	VCMDTCLLIV	SMILSRFLD	VIIDIPDERF	ILAVLFVSIL
YLILSFRLKV	FSLITRYTGY	QSYVKIGLSL	ISAHSLFLII	SMVLWQAFSY	
RFILVSLFLS	YVMLITPRIV	WKVLHETRKN	AIRKKDSPLR	ILVVGAGDGG	NIFINTVKDR
KLNFEIVGIV	DRDPNKLGT	IRTAKVLGNR	NDIPRLVEEL	AVDQVTIAIP	
SLNGKEREKI	VEICNTTGV	VNNMPSIEDI	MAGNMSVSAF	QEIDVADLLG	RPEVVLDQDE
LNQFFQGKTI	LVTGAGGSIG	SELCRQIAKF	TPKRLLLLGH	GENSIYLIHR	
ELLEKYQGKI	ELVPLIADIQ	DRELIFSIMA	EYQPDVVYHA	AAHKHVPLME	YNPHEAVKNN
IFGTKNVAEA	AKTAKVAKFV	MVSTDKAVNP	PNVMGATKRV	AEMIVTGLNE	
PGQTQFAAVR	FGNVLGSRGS	VVPLFKEQIR	KGGPVTVTDF	RMTRYFMTIP	EASRLVIQAG
HLAKGGEIFV	LDMGEPVQIL	ELARKVILLS	GHTEEEIGIV	ESGIRPGEKL	
YEELLSTEER	VSEQIHEKIF	VGRVTNKQSD	IVNSFINGLL	QKDRNELKNM	LIEFAKQE

Fig. 5 cont.

CPS9E

SEQ. ID. NO. 39

T022T0" T4049460

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PCT/NL99/00460

MYPICKRILA I...IAIVV LSPILLIAL AIKLDKGPV L...VGKN KSYFMIYKFR
SMYVDAPSDM PTHLLKDPKA MITKVGAFRL KTSLELPLQL FNIFKGEMAI
VGPRPALWNQ YDLIEERDKY GANDIRPGLT GWAQINGRDE LEIDEKSKLD GYYVQNMSLG
LDIKCFLGTF LSVARSEGVV EGGTGQKGKG

Fig. 5 cont.

CPS9F

SEQ. ID. NO. 40

09767041.013301

45/59

MKFSVLMSVY EKEKPEFLRE SLESILVNQT MIPTEVVLVE DGPLNQSLYS ILEEFKSRFS
FFKTIALEKN SGLGIALNEG LKHCNYEWVC TKWILMLHI HTRFEKQVNF
IKQNPTIDIE IDEFLNSTSE IVSHKNVPTQ HDEILKMARR EKSMCHMTVM FKKKSVERAG
GYQTLPYVED YFLWVRMIAS GSKFANIDET LVLARVGNGM FNRRGNREQI
NSWTLLIEFM LAQGIVTPLD VFINQIYIRV FVYMPTWIKK LIYGKILRK

Fig. 5 cont.

CPS9G

SEQ. ID. NO. 41

09767041.012204

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MITVLMATYN GSPFIIKQLD SIRNQSVSAD KVIIWDDCST DDTIKIHKDY IKKYSLDSWV
VSQNKSNQGH YQTFINLTKL VQEGIVFFSD QDDIWDCHKI ETMLPIFDRE
NVSMVFCKSR LIDENGNIIS SPDTSDRINT YSL

Fig. 5 cont.

CPS9H

SEQ. ID. NO. 42

T022T0" T4029260

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 ATATTTTGG AACGAAGAAT GTGGCTGAGG CGGCTAAAAC TGCAAAGGTT
 GCCAAATTTG TTATGGTTTC AACAGATAAA GCTGTTAATC CGCCAAATGT CATGGGAGCG
 ACTAACGTG TTGCAGAAAT GATTGTAACA GGTTTAAACG AGCCAGGTCA
 GACTCAATTT GCGGCAGTCC GTTTTGGGAA TGTCTAGGT AGTCGTGGAA GTGTTGTTCC
 GCTATTCAA GAGCAAATTA GAAAAGGTGG ACCTGTTACG GTTACCGACT
 TTAGGATGAC TCGTTATTTT ATGACGATTC CTGAGGCAAG TCGTTTGGTT ATCCAAGCTG
 GACATTTGGC AAAAGGTGGA GAAATCTTTG TCTTGGATAT GGGTGAGCCA
 GTACAAATCC TGGAAATTGGC AAGAAAAGTT ATCTTGTTAA GCGGACATAC AGAGGAAGAA
 ATCGGGATTG TAGAATCTGG AATCAGACCA GGTTCAGCGA ACAGATTCAT GAAAAAATAT TTGTGGGTCCG
 ATTGTTATCA ACAGAAGAAC GTGTCAGCGA ACAGATTCAT GAAAAAATAT TTGTGGGTCCG
 CGTTACAAAT AAGCAGTCGG ACATTGTCAA TTCATTTATC AATGGATTAC
 TCCAAAAGA TAGAAATGAA TTAAGAGATA TGTGATTGA ATTTGCAAAA CAAGAATAAG
 AAAGTAAAAA ATATTTTAC TTTCTAGAG TTTAAACGAT GTTTAAGTTC
 TAGGAAGGTT GGAATTGCTT TCGTGGAGGT GATAGATAGA AACCTATATA TTTGTAGAAG
 AAAGGATATT AAATAAAGG TGAATCGGAA CATAAAGTTT AGATAGAGTT
 GGTATTTAAT GCCAAACAGG TGAATGCAAC CTCTCGCTCG TTAATAAGCA GGAGATAGTA
 AAGTTGCTTG AAAGAGAGTT TGTTAATCAG TATAAGTAGG CTAAAGTGAG
 AATATATATC TATTATTATC GGTAATGATA CTATTATTGA GAATTATTGT AGTGGGGATA
 AAAATAATTT TTGGTGATTT TATCGTCCGA CTTAAAGGTG GGTAAAAA
 GTACTTATAT TCTTTTAGAA TTGATGAAAA ATATGGGGGA ATATAATATT TATAGGAGAT
 ACGATGACTA GAGTAGAGTT GATTACTAGA GAATTTTTTA AGAAGAATGA
 AGCAACCACT AAATATTTTC AGAAGATAGA ATCAAGAAGA GGTGAATTAT TTATTAAATT
 CTTTATGGAT AAGTTACTTG CGCTTATCCT ATTATTGCTA TTATCCCAG
 TAATCATTAT ATTAGCTATT TGGATAAAAT TAGATAGTAA GGGGCCAATT TTTTATCGCC
 AAGAACGTGT TACGAGATAT GGTCAATTT TTAGAATATT TAAGTTTGA
 ACAATGATTT CTGATGCGGA TAAAGTCGGA AGTCTTGTC CAGTCGGTCA AGATAATCGT
 ATTACGAAAG TCGGTCACAT TATCAGAAAA TATCGGCTGG ACGAAGTGCC
 CCAACTTTTT AATGTTTTAA TGGGGGATAT GAGCTTTGTA GGTGTAAGAC CAGAAGTACA
 AAAATATGTA AATCAGTATA CTGATGAAAT GTTTGCGACG TTACTTTTAC
 CTGCAGGAAT TACTTCACCA GCGAGTATTG CATATAAGGA TGAAGATATT GTTTTGAAG
 AATATTGTTT TCAAGGCTAT AGTCTGTATG AAGCATATGT TCAAAAAGTA
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 TTTAAAGTAA TGATTGATAC AGTAATTTAA GTAATAAAAT AGGAGATTAA
 AATGACAAAA AGACAAAATA TTCCATTTTC ACCACCAGAT ATTACCCAAG CTGAAATTGA
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 GATGGAATAT GATGCTTTGG AAAAAGCGAT TACTCCGAAA ACAAAGTTA TCATTCCTGT
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 AAAACAAACG CTCTTTGTAT GTTGCTTCTG ATAATAAATG GCAGAACTT TTTGGGCGAG
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 ACAACTGCTG AAGGAGGTAG TGTGACATGG AGATCACATC CTGATTGGA
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 ATTAGCTAAG ACACAATTAG GGTCATGGGA ATATGACATT GTTATTCCTG
 GTTACAAGTG TAATATGACA GATATTATGG CAGGTATCGG TCTTGTGCAA TTAGAAGGTT
 ACCCATCTTT GTTGAATCGT CGCAGAGAAA TCATTGAGAA ATACAATGCT
 GGCTTTGAGG GGAATTCGAT TAAGCCGTTG GTACACCTGA CGGAAGATAA ACAATCGTCT
 ATGCACCTGT ATATCACGCA TCTACAAGGC TATACCTTAG AACAACGAAA
 TGAAGTCATT CAAAAAATGG CTGAAGCAGG TATTGCGTGC AATGTTCACT ACAAACCATT
 ACCTCTTCTC ACAGCCTACA AGAATCTTGG TTTTGAAATG AAAGATTTTC
 CGAATGCCTA TCAGTATTTT GAAAATGAAG TTACTACTGCC TCTTCATACC AACTTGAGTG
 ATGAAGATGT GGAGTATGTG ATAGAAATGT TTTTAAAAAT TGTTAGTAGA
 GATTAGTTAT TTTGGAAGGA GATATGGTGG AAAGAGATAT GGTGGAAAGA GACACGTTGG
 TATCTATAAT AATGCCCTCG TGAATACAG CTAAGTATAT ATCTGAATCA
 ATCCAGTCAG TGTGGACCA AACACACCAA AATTGGGAAC TTATAATCGT TGATGATTGT
 TCTAATGACG AAATGAAAA AGTTGTTTCG CATTTCAAAG ATTCAAGAAT

DNA Serotype 7

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AAAGTTTTTT AAAAATTCGA ATAATTTAGG GGCAGCTCTA ACACGAAATA AGGCACTAAG
AAAAGCTAGA GGTAGGTGGA TTGCGTTCTT GGATTCAGAT GATTTATGGC
ACCCGAGTAA GCTAGAAAAA CAGCTTGAAT TTATGAAAAA TAATGGATAT TCATTTACTT
ATCACAATTT TGAAAAGATT GATGAATCTA GTCAGTCTTT ACGTGTCTG
GTGTCAGGAC CAGCAATTGT GACTAGAAAA ATGATGTACA ATTACGGCTA TCCAGGGTGT
TTGACTTTCA TGTATGATGC AGACAAAATG GGTTTAATTC AGATAAAGA
TATAAAGAAA AATAACGATT ATGCGATATT ACTTCAATTG TGTAAGAAGT ATGACTGTTA
TCTTTTAAAT GAAAGTTTAG CTTCGTATCG AATTAGAAAA AA

Fig. 6 cont.

SEQ. ID. NO. 43

T022T0 "T4029460

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PCT/NL99/00460

AAHKHVPLME YH HEAVKNN IFGTKNVAEA AKTAKVAKFV MVE OKAVNP PNVMGATKRV
AEMIVTGLNE PGQTQFAAVR FGNVLGSRGS VVPLFKEQIR KGGPVTVTDF
RMTRYFMTIP EASRLVIQAG HLAGGGEIFV LDMGEPVQIL ELARKVILLS GHTEEEIGIV
ESGIRPGEKL YEELLSTEER VSEQIHEKIF VGRVTNKQSD IVNSFINGLL
QKDRNELKDM LIEFAKQE

Fig. 6 cont.

CPS7E

SEQ. ID. NO. 44

FO22T0" T4029260

WO 00/05378

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PCT/NL99/00460

MTRVELITRE NEATSK YFQIESRRG ELFIKFFMDK LLLLLL SPVIIILAIW
IKLDSKGPIF YRQERVTRYG RIFRIFKERT MISDADKVG LTVGQDNRI
TKVGHIIRKY RLDEVPQLFN VLMGDSFVG VRPEVQKYVN QYTD MFATL LLPAGITSPA
SIAYKDEDIV LEEYCSQGYS PDEAYVQKVL PEKMKYNLEY IRNFGIISDF
KVMIDTVIKV IK

Fig. 6 cont.

CPS7F

SEQ. ID. NO. 45

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WO 00/05378

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PCT/NL99/00460

MTKRQNIFFS E TQAEID EVIDTLKSGW ITTGPKTKEL EF VFTGT NKTVCLNSAT
AGLELVLRIL GVGPGDEVIV PAMTYTASCS VITHVGATPV MVDIQKNSFE
MEYDALEKAI TPCTKVII PV DLAGIPCDYD KIYTIVENKR SLYVASDNKW QKLFGRVIIL
SDSAHSLGAS YKGKPAAGSLA DFTSFSEHAV KNFTTAEGGS VTWRSHPDLD
DEEMYKEFQI YSLHGQTKDA LAKTQLGSWE YDIVIPGYKC NMTDIMAGIG LVQLERYPSL
LNRRREIIIEK YNAGFEGTSI KPLVHLTEDK QSSMHLYITH LQGYTLEQRN
EVIQKMAEAG IACNVHYKPL PLLTAYKNLG FEMKDFPNAY QYFENEVTLP LHTNLSDEDV
EYVIEMFLKI VSRD

Fig. 6 cont.

CPS7G

SEQ. ID. NO. 46

09767041-012201

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MVERDMVERD TLVSIIMPSW NTAKYISESI QSVLDQTHQN WELIIVDDCS NDETEKVVSH
FKDSRIKFFK NSNNLGAALT RNKALRKARG RWIAFLDSDD LWHPSKLEKQ
LEFMKNNGYS FTYHNFEEKID ESSQSLRVLV SGPAIVTRKM MYNYGYPGCL TFMYDADKMG
LIQIKDIKKN NDYAILLQLC KKYDCYLLNE SLASYRIRK

Fig. 6 cont.

CPS7H

SEQ. ID. NO. 47

FOI 2001-012201

Cps2J	MEKVSIIIVPI	FNTEKYLREC	LDSIISQSYT	NLEILLIDDG	SSDSSTDICL	EYAEQDGRIC	60
Cps2K	MINISIIIVPI	YNVEQYLSKC	INSIVNQTYK	HIEILLVNDG	STDNSEEICL	AYAKKDSRIR	60
	*						
Cps2J	LFRLPNGGVS	NARNYGIKNS	TANYIMFVDS	DDIVDGNIVE	SLYTCLKEND	SDLSGGLLAT	120
Cps2K	YFKKENGGLS	DARNYGISRA	KGDYLAFIDS	DDFIHSEFIQ	RL_HEAIERE	NAL__VAVAG	117

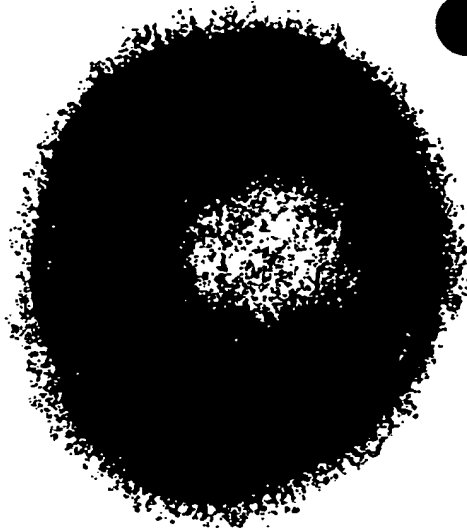
Cps2J
(SEQ. ID. NO. 51)

Cps2K
(SEQ. ID. NO. 52)

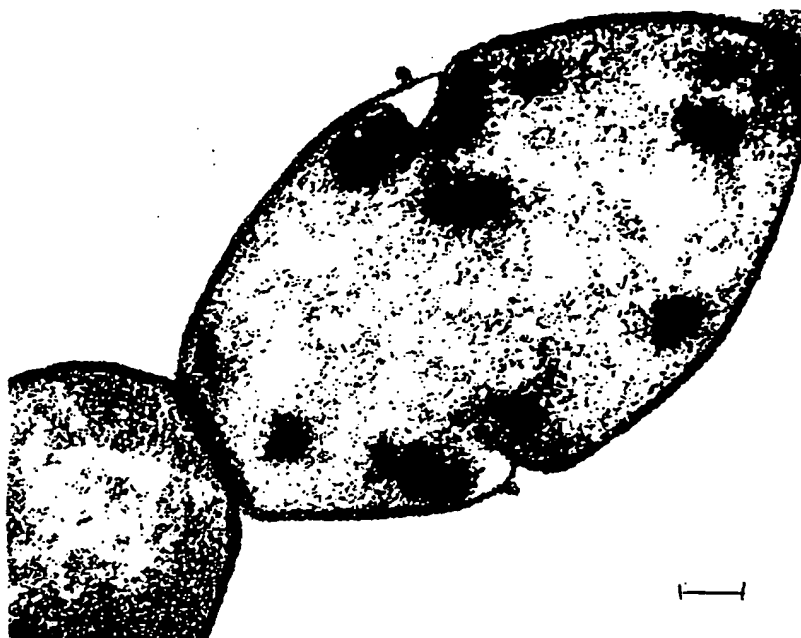
Fig. 7

0967011010203

A



B



C

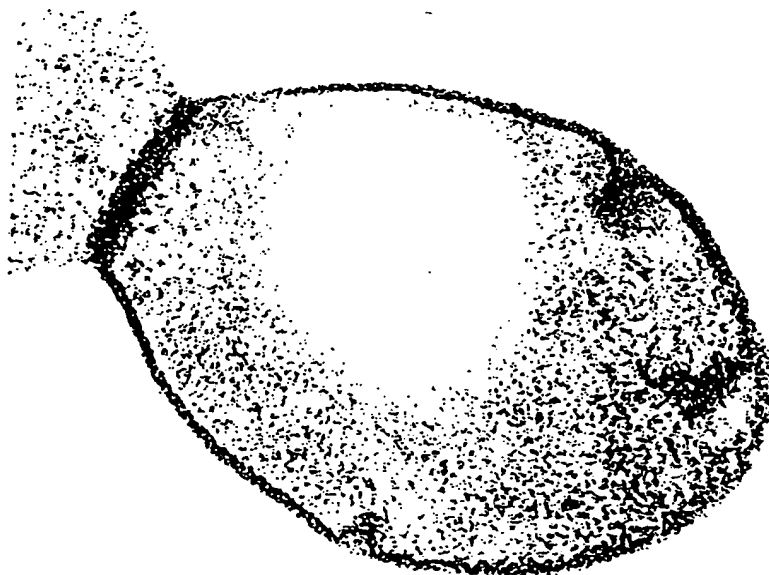


Fig. 8

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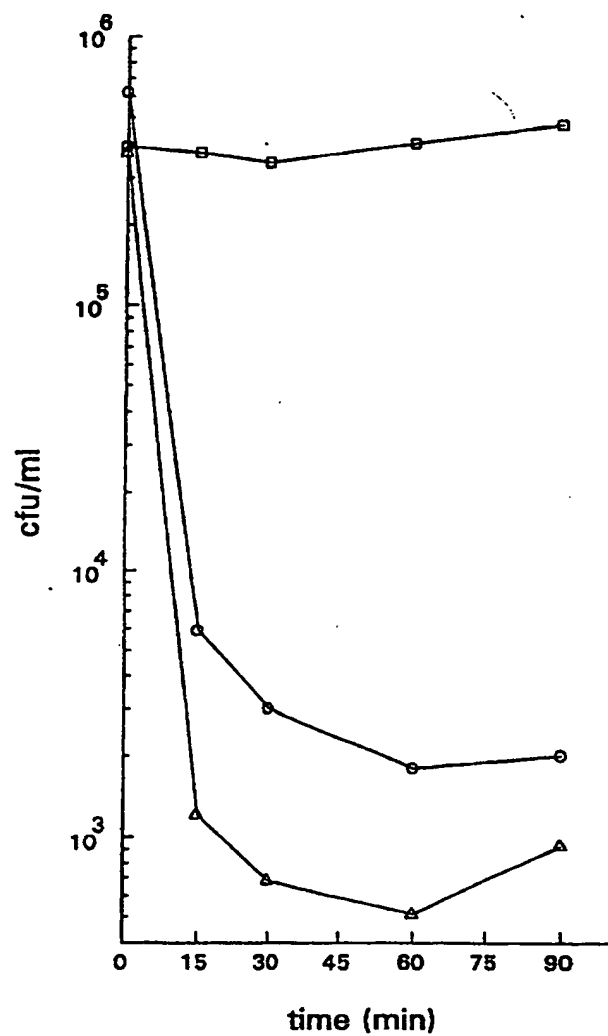


Fig. 9A

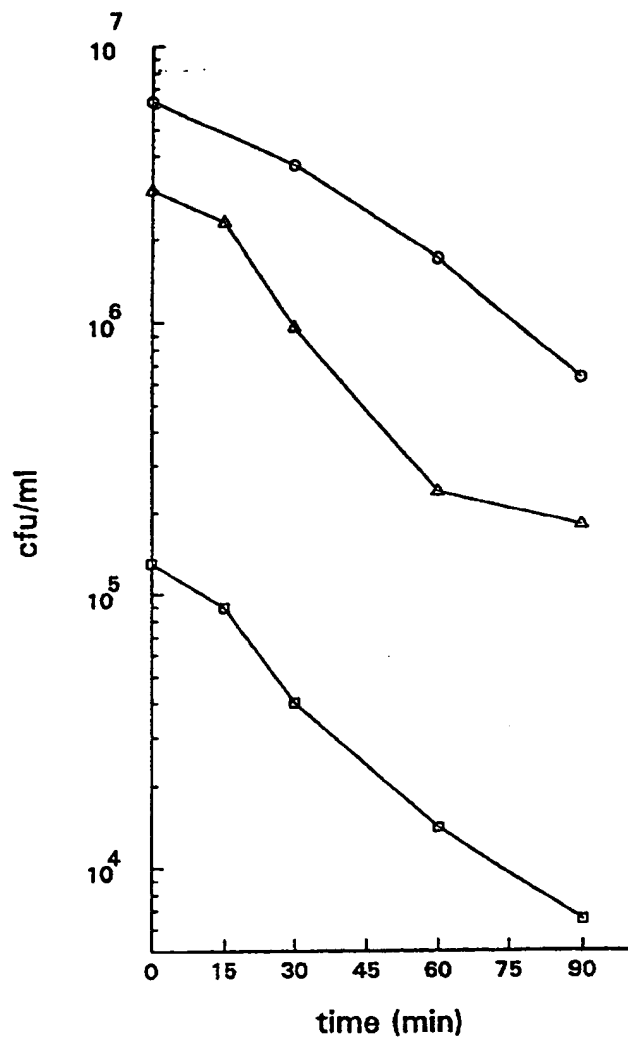


Fig. 9B

[illegible]

Fig. 10

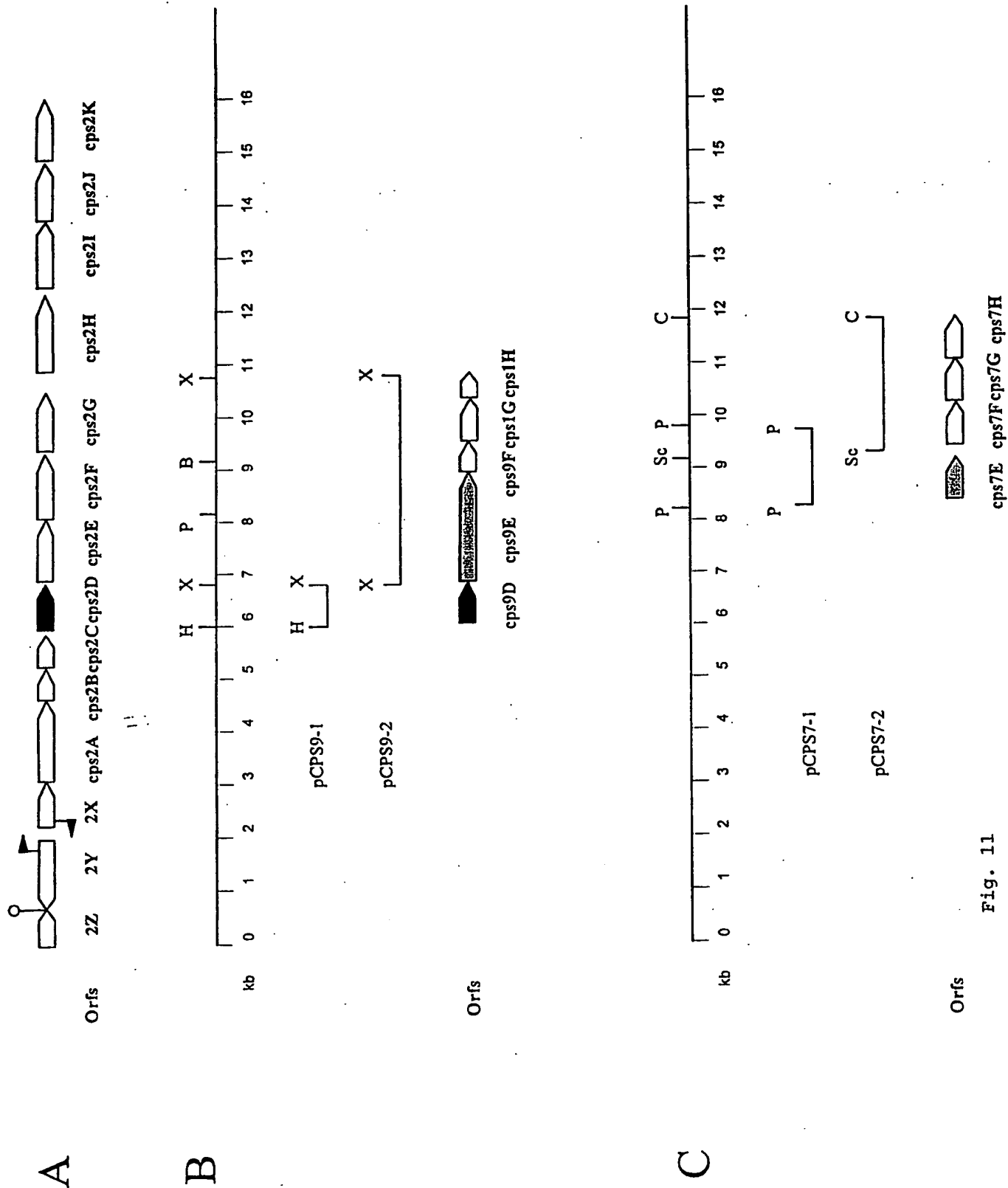


Fig. 11

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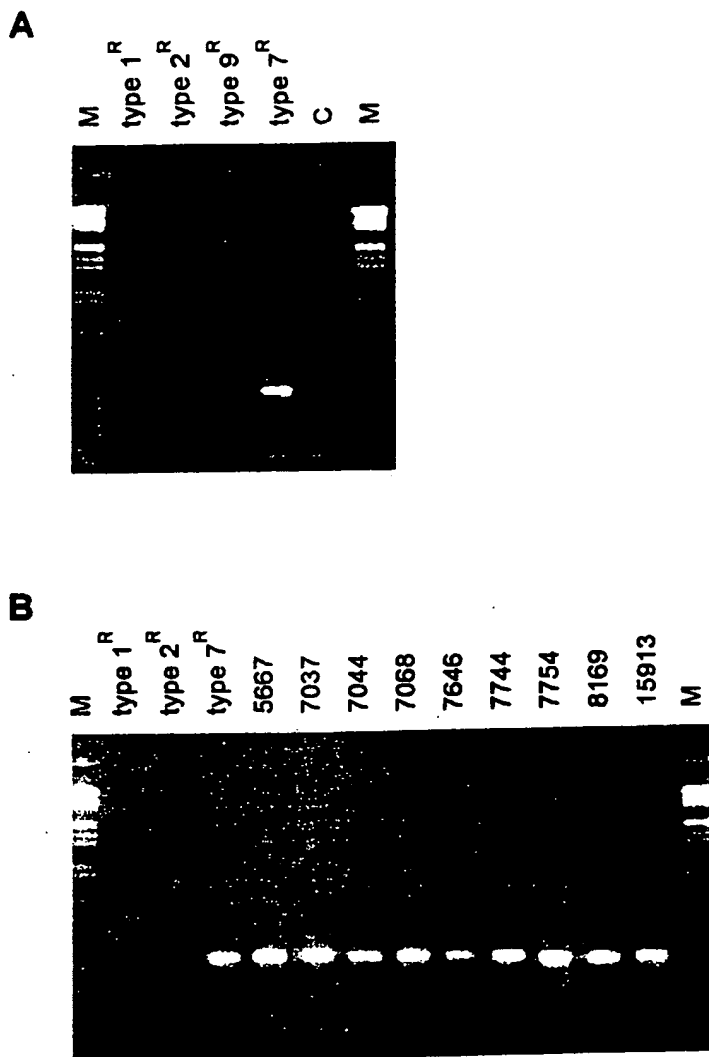


Fig. 12

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